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REMARKS ON THE USES

OF SOME OF THE

BAZAAR MEDICINES

AND

COMMON MEDICAL PLANTS OF INDIA.



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REMARKS ON THE USES

OF SOME OF THE

BAZAAR MEDICINES

AND

COMMON MEDICAL PLANTS OF INDIA

WITH A FULL INDEX OF DISEASES, INDICATING THEIR
TREATMENT BY THESE AND OTHER AGENTS
PROCURABLE THROUGHOUT INDIA

TO WHICH ARE ADDED

DIRECTIONS FOR TREATMENT IN CASES OF
DROWNING, SNAKE BITES, &c.

BY

EDWARD JOHN WARING, M.D.

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SURGEON (RETIRED) HER MAJESTY'S INDIAN ARMY,
EDITOR OF THE PHARMACOPŒIA OF INDIA.

Second Edition.

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through our great Indian possessions, to whom a work of the kind would prove most acceptable, by pointing out to them the agents—either purchasable in the bazaars at an almost nominal price, or procurable, at the cost of collection, from the road-sides, waste-places, or gardens in the immediate neighbourhood of almost every out-station—by means of which, with the exercise of ordinary intelligence, they may often be enabled to relieve the sufferings of those amongst whom their lot has been cast.

At the head of these classes stand the Missionaries, whose stations, for the most part, are too far removed from the busy haunts of men to allow of their calling in regular medical aid in cases of sickness, and who are consequently thrown, at such times, very much on their own resources. Many of the missionaries have under their charge large establishments of catechists, pupils, &c.; and it cannot be otherwise than highly desirable that they should be put in possession of any information regarding the available means of relieving the sufferings, and treating the diseases of those placed under their care. This is not the place to enter into a disquisition on missionary work, but I cannot refrain from expressing my firm conviction that the more the principle of Medical Missions—making Religion and Medicine go hand in hand—is carried out, the

greater, humanly speaking, will be the success of missionary efforts. How many a door for the admission of Gospel truth, which would otherwise be shut, would be opened, and that readily, to one who, with "the glad tidings of great joy" in the one hand, would bring in the other, the means of relieving physical suffering and curing bodily disease! The highest distinction that I would claim for this little work, is that it may constitute, as far as India is concerned, a Missionaries' Medical Vade Meeum.

Next on the *rôle* comes a large army of European and Anglo-Indian officials, whether within the magic circle of "the Service" or beyond its pale, who are attached to the Public Works, Forests, Railway, Telegraph, or other Departments, or employed in Tea, Coffee, or Cotton plantations, in commercial pursuits, &c., many of them married men, with families and a large number of dependents, the majority at distant "up-country stations," miles away from medical aid; how important for persons under such circumstances, to possess a knowledge of the means lying (literally so in many instances) at their very feet, by which pain and suffering may be alleviated, and, perhaps, a valuable life saved.

Lastly, but by no means least, either in point of numbers or importance, comes the daily increasing

array of educated Natives, who, as a class, readily avail themselves of every scrap of knowledge drawn from trustworthy European sources, which tends to throw light on the products and resources of their native land. Whilst, on the one hand, I am perfectly prepared to admit that much of the knowledge I possess of the properties and uses of Indian drugs has been derived from Native sources, I think I may, on the other hand, without presumption, claim the credit of repaying the debt with interest, furnishing in return a considerable amount of information on the uses of even the same drugs, of which the Natives themselves had previously no idea. It is to this class that I venture to think this little work will prove most useful and acceptable.

In addition to the above, I venture to hope that to even duly qualified Medical Officers, especially at up-country stations, a work like the present may prove servicable on emergencies, *e. g.*, a failure of the supply of European drugs, &c., by showing them what resources they have at command in the bazaars or in their immediate neighbourhood, by means of which, many a gap may be stopped till more efficient remedies are available.

In undertaking a Second Edition of this work, I have been further influenced by a desire to render its scope and contents more complete. With more

extended knowledge on my part, drawn partly from subsequent personal experience in the use of Indian drugs, and partly from the Reports received from Medical Officers during the preparation of the Pharmacopœia of India, I realised how imperfect the original work was; and feeling myself in a position to add much information which would tend to increase its usefulness, I determined upon issuing another edition. The whole work has accordingly been re-written and greatly enlarged.

It was evidently quite out of the question, in a small work like the present, to include the host of medicines included under the general headings of "Bazaar Medicines" and "Common Medical Plants of India," but from them I have made a selection of about 80, comprising—1 Antacid, 8 Astringents, 3 Antispasmodics, 2 Antiscorbutics, 6 Antiperiodics, 5 Demulcents and Emollients, 4 Diaphoretics or Sudorifics, 4 Diuretics, 3 Expectorants, 2 Emmenagogues, 4 Emetics, 6 Purgatives, 3 Narcotics or Sedatives, 5 Refrigerants, 9 Stomachics or Carminatives, 7 Bitter Tonics, 5 Alterative Tonics or Alteratives, 2 Metallic Tonics, 7 Local and 4 General Stimulants, 2 Vesicants or Blistering Agents, 6 Vermifuges, and 17 Miscellaneous Articles, not included in the above classes.

In making this selection I have been guided by

the following principles:—1. By the safety of the drug; hence Arsenic, Aconite Root (Bish), Nux Vomica, Indian Hemp, and some other powerful medicines have been omitted, as it was felt to be inadvisable, in a work like the present, to introduce agents which, in the hands of unprofessional persons, might do more harm than good if employed in unsuitable cases. Where, however, a powerful drug, *e.g.* Opium, has been admitted, minute directions as to its employment have been given. 2. By the acknowledged utility or efficacy of the drug as proved by European experience. 3. By the drug possessing a generally well-known, recognised native name. 4. By its wide distribution and easy procurability in all parts, and in all the bazaars of India generally. It is hoped that by the addition of the native names and descriptions of the drugs (which were omitted in the First Edition), even a new comer will have little difficulty in obtaining and recognising any particular article he may require.

With this native “Apparatus Medicaminum” very much may be accomplished under ordinary circumstances, in the way of relieving suffering and curing disease; but it must be admitted that there are certain articles included under the class “European Medicinos” for which the Indian bazaars supply no adequate substitutes. I have therefore (in Appendix

C) added a list of nine drugs which it appears desirable should always be kept in store. They are—1. Sulphate of Quinine; 2. Ipecacuanha; 3. Smyrna, or Turkey Opium; 4. Calomel; 5. Acetate of Lead; 6. Santonin; 7. Liquor Ammonizæ; 8. Blistering Fluid; and 9. Carbolic Acid. No attempt has been made in the body of the work to enter into a description of the properties and uses of these drugs generally (with the exception of Opium), but in the Synopsis or Index of Diseases (Part ii.) it has been pointed out, chiefly in foot notes, how these valuable agents may be utilised in the most efficient manner. It is believed that, by adopting this course, the practical utility of the work will be greatly enhanced.

Attention is particularly directed to the Synopsis or Index of Diseases in Part ii.; it is not pretended that the modes of treatment therein detailed are the best which could be adopted; the object has rather been to show how much good may be effected by the simple means at command at almost every "up-country station" throughout India; and those who follow the directions may feel assured, that with the exercise of ordinary prudence, if they fail to do good they will at any rate do no harm.

Notwithstanding the large amount of new matter incorporated in this edition, I am fully conscious of its numerous defects and shortcomings; hence I

shall feel under an obligation to any of my medical and other friends in India who will favour me with any suggestions and observations (especially with reference to the use of native drugs, drawn from personal experience), which would add to the practical value of future editions, should such be called for. All communications addressed to me, to the care of Messrs. GRINDLAY and Co., 66, Parliament Street, S.W., London, will be thankfully received.

LONDON, 1874.

INTRODUCTION.

It is presumed that this work will fall into the hands of many who are wholly ignorant of, or very partially acquainted with, matters pharmaceutical; hence some few introductory remarks are indispensable, to enable such persons to understand fully, and follow out correctly, the directions given.

1. *Weights and Measures.* In Appendix C., a small set of Apothecaries' scales and weights is included, but in the absence of the former, it is well to remember that a small set of scales, such as is used by native jewellers, can be procured for a few annas in every bazaar; care, however, is necessary to see that the balance is strictly correct and even.

Weights. The Apothecary weights supplied from England, have the following marks or signs impressed upon them:—

℞s	= half a scruple	= 10 grains.
℞j	= one scruple	= 20 „
ʒss	= half a drachm	= 30 „
ʒj	= one drachm	= 60 „
ʒjss	= one drachm and a half	= 90 „
ʒij	= two drachms	= 120 „

The small circular indentations on the grain weights indicate the number of grains each weight represent.

In the absence of these, the following hints may be useful :—

A new rupee of the present currency weighs 180 grains or three drachms.

A half rupee of the present currency weighs 90 grains or a drachm and a half.

A quarter rupee of the present currency weighs 45 grains or three-quarters of a drachm.

To obtain smaller weights beat a new quarter rupee into a long, thin, narrow plate, and divide it carefully into three equal parts. You have thus three 15 grain weights. One of these divided again into three equal parts, furnishes three 5 grain weights. One of these subdivided into five equal parts, furnishes five 1 grain weights. Care should be taken to see that the parts are of equal weights, and each part should be marked with a figure to denote its weight. A native jeweller, at a very small cost, will readily carry out the above sub-division.

With these, you may obtain any small weights you require : thus, if you require nine grains, you use a 5 grain weight and four single grain weights. If you want a drachm weight (60 grains), you use a quarter Rupee (45 grains) and a 15 grain weight, which makes exactly the 60 grains or one drachm. To get a scruple (20 grain) weight, you use one of the 15 grain and one of the 5 grain weights = 20 grains or one scruplo.

Two Rupees and a half Rupee together weigh 450 grains or slightly over one ounce, which weight

they may be taken to represent, in the absence of regular weights, in making up any of the prescriptions given in the following pages.

Measures of Capacity. For these, the English Graduated Measures, glasses included, in Appendix C., should be employed. The marks on them signify as follows :—

℥	=	1 minim.
fʒ	one fluid draehm	= 60 minims.
fʒj	one fluid ounce	= 8 fluid drachms.
O	one pint	= 20 fluid ounces.

In default of a graduated measure glass, it may be useful to know that a small eup of silver or other metal, exactly the circumference of a quarter Rupee and $3\frac{3}{4}$ inches deep, will hold exactly one ounce, and twenty of these full of liquid make one pint. Each ounce contains eight fluid draehms, so with the aid of this ounce measure you can calculate the quantity required pretty accurately. The measure should be made of silver, as some medicines, especially the acids, act on the other metals.

Any native jeweller would manufacture one of these measures in a short time, and at a very small cost.

In the following pages other domestic measures, as they may be termed, are mentioned; they represent approximately the following quantities :—

A wineglassful (ordinary size)	=	one fluid oz. & a half.
Two table spoonfuls	...	= one oz.
One table spoonful	...	= half oz.
One dessert spoonful	...	= two drachms.
One tea spoonful	...	= one drachm.

“A drop” may be taken generally to represent a minim, though in many instances they differ considerably in capacity.

It must be borne in mind that these measurements apply solely to fluids—never to solids. A table spoonful of some solids, as powders, would weigh two or three ounces, whilst of others it might only be as many drachms.

Preparations. A few hints on these may be useful to the uninitiated. *Infusions.* In preparing these, the following points require attention: *a*, the solid ingredients should be cut into small pieces or slices, or bruised in a mortar, so that the water shall readily penetrate into the substance; *b*, the water should be *boiling*; *c*, the vessel or chattie containing the ingredients on which the boiling water has been poured, should be covered over to prevent evaporation, and set aside till the liquid is cold, when it should be strained through muslin or thin rag. In hot climates infusions soon spoil, hence they should be freshly prepared every other day at the furthest. *Decoctions.* These differ from Infusions in so far that the ingredients are subject to the process of boiling. The requisite quantity of water having been heated to boiling-point, the solid ingredients, prepared as for infusions, are to be introduced, and and the whole boiled in a covered vessel for the specified period. The liquid whilst hot should be strained and set aside in a covered vessel till cold. Like infusions, they rapidly become spoilt in hot climates. *Tinctures.* These are formed by macerating the solid ingredients, prepared as directed

for Infusions, in a bottle with the specified quantity of spirit, for seven days or more, occasionally shaking the same to ensure the spirit acting thoroughly on the ingredients. At the end of the specified period it should be strained, and the clear liquid set aside in a cool place in well stoppered bottles, for use. Great care is necessary to prevent evaporation; hence if a glass stoppered bottle is used, softened wax should be carefully placed round the stopper, which should be further secured by a cap of thin leather or wax-cloth tied tightly over it. It is thought by many that evaporation of spirit takes place less rapidly in a closely fitting *corked* bottle than in one provided with a glass stopper. In either case layers of wax and the leather are advisable. Under the most favourable circumstances evaporation to a greater or less extent will take place in hot climates; hence by long keeping, the tincture acquires increased strength, and in regulating the dose of the more active tinctures, as of Opium or Datura, the fact ought to be borne in mind, or serious consequences may ensue. *Powders.* When an article is ordered to be taken in the form of powder, it should be pulverised as finely as possible. There is little difficulty in this when a large quantity of the article is required to be kept in store, as is generally advisable, as the natives by the aid of the simple machinery which they employ in making "Curry powder," will reduce the hardest solid ingredients to the requisite state of fineness. When only a few grains or a small quantity is required, it may be obtained by means

of a nutmeg grater (included in List in Appendix C.), and subsequently triturating the rough powder thus obtained in a mortar till it is reduced to the state of a fine powder. In the preparation of a compound powder, *i.e.* a powder containing two or more ingredients, it is of the greatest importance that they should be uniformly and thoroughly incorporated, else it is evident that a small portion of it, such as is usually prescribed as a dose, may contain an excess of one ingredient—it may be an active or dangerous one, and operate powerfully—whilst the next dose may be comparatively inert. Powders, when prepared in large quantities, should be kept in well stoppered or corked bottles; if left in open vessels exposed to the action of the air, they soon become deteriorated. *Pills.* For the reasons just stated, it is necessary, when two or more ingredients enter into the composition of a pill mass, to be careful that they are thoroughly incorporated. When powders, &c., enter into their composition, a little honey or jaggery is the best thing to give them cohesion and consistence. They should be moderately hard; if too soft, they are apt to lose the globular form which they ought to possess, and become a shapeless mass. When several pills are made, a little Arrowroot or Rice Flour should be added to the box which contains them, to keep them from adhering to one another. No pill should ordinarily exceed 5 grains in weight, otherwise there will be difficulty in swallowing it; two 3 grain pills are more easily taken than one of 6 grains. Pills, when prepared in any quantity should, like powders, be kept in well stoppered or corked bottles.

Ointments. Animal fats, *e.g.*, Lard, which is so generally used in English pharmacy, are apt to become rancid and irritating in hot climates; hence they should be discarded in tropical practice. In India there is another cogent reason for abandoning them, *viz.*, the religious prejudices of the natives, especially of the Mussulman, to whom hog's fat is an abomination. The only allowable animal fat in India is freshly prepared Ghee or clarified butter; but this in the hotter part of India is of too thin consistence for ordinary ointments. Fortunately India supplies at least two vegetable substitutes, Kokum Butter and Piney Tallow (the expressed Oil of *Vateria Indica*). In addition to these, I have introduced a third article, Ceromel (a mixture of wax and honey). With these three agents it is believed that animal fats may be altogether dispensed with in Indian pharmacy.

Native Names. These have been derived, for the most part, from Mr. Moodeen Sheriff's valuable and elaborate Catalogue, which forms the Supplement to the Pharmacopœia of India.

Some few additions and alterations, however, have been made on my own authority, *e.g.*, in *Abrus precatorius* and *Acacia Arabica*, where the names of a part of a plant have had to be substituted for the plant itself; the latter only being given by Mr. Moodeen Sheriff. It is only necessary, in this place to indicate the pronounciation of the vowels met with in this work.

a (short) as in *about*, or the final *a* in *Calcutta*.

á (long) as in *all*, *call*.

e (short) as in *elbow*, or the first *e* in *never*.

é (long) as *a* in *able*, or *ai* in *fair*.

i (short) as *i* in *ink*, *bid*.

í (long) as *ee* in *feed* and *free*.

o (short) as in *from*.

ó (long) as in *opium*, *home*.

u (short) as in *full*, or as in *wolf*.

ú (long) as in *fool*, *too*.

Explanation of the Abbreviations employed in the lists of the native names of the drugs :—

Hind., Hindustani.

Duk., Dukhni.

Beng., Bengali.

Tam., Tamil.

Tel., Telugu.

Malyal., Malyalim.

Can., Canarese.

Mah., Mahratti.

Guz., Guzratti.

Cing., Cingalese.

Burm., Burmese.

REMARKS ON THE
USES OF SOME OF THE
BAZAAR MEDICINES OF INDIA.

PART I.

ALPHABETICAL LIST OF THE BAZAAR MEDICINES AND
INDIAN MEDICAL PLANTS INCLUDED IN THIS WORK.

1. *Abelmoschus*, or *Edible Hibiscus*. **Okra**. The fresh unripe capsules or fruit of *Abelmoschus* (*Hibiscus*) *esculentus*, *Linn.*

Bhindí, Rám-turái (*Hind.*), Bhéndí (*Duk.*), Dhéras or Dhénras, Rám-torái (*Beng.*), Vendaik-káy (*Tam.*), Benda-káya (*Tel.*), Ventak-káya (*Mal-yal*), Bendé-káyi (*Can.*), Bhéndá (*Mah.*), Bhíndu (*Guz.*), Banda-ká (*Cing.*), Youn-padi-sí (*Burm.*).

2. This well-known vegetable, cultivated throughout India, abounds in a copious, bland, viscid mucilage, which possesses valuable emollient and demulcent properties, rendering the practitioner in India independent of mallow and other European articles of that class. The dried fruit may be employed where it is not procurable in a fresh state. It is best given in decoction, prepared by boiling three ounces of the fresh capsules, cut transversely, in a pint and a half of water for twenty minutes, straining and sweetening to taste. This, taken as

an ordinary drink, proves alike agreeable and serviceable in *Fevers, Catarrhal attacks, Irritable states of the Bladder and Kidneys, in Gonorrhœa, and in all cases attended with scalding pain, and difficulty in passing Urine.* Under its use the urine is said to become much increased in quantity.

3. *In Hoarseness, and in dry and irritable states of the Throat, giving rise, as is often the case, to a troublesome Cough, as in Consumption, &c.,* the free inhalation of the vapour of the hot decoction (*ante*) has in many instances been found serviceable.

4. The fresh capsules bruised are stated to form an efficient emollient poultice.

5. **Abrus, or Country Liquorice Root.** The root of *Abrus precatorius, Linn.*

Mulatthí-hindi, Gunj-ka-jar (*Hind., Duk.*), Jaishtomodhu-bengala, Kunch-ka-jar (*Beng.*), Gundu-mani-vér (*Tam.*), Guru-venda-véru (*Tel.*), Kunni-kuru-véra (*Malyal*), Gul-ganji-béru (*Can.*), Olinda-múl (*Cing.*), Yu-e-si-anú (*Burm.*).

6. This root, obtained from a twining shrub common throughout India, whose bright scarlet seeds with a black spot at one end are universally known, possesses many of the sensible properties and medical qualities of the true liquorice-root (which is also to be met with in some of the large bazaars), hence its common name, Country Liquorice. Properly prepared, it yields an extract similar to officinal liquorice, but less sweet and more bitter. The following syrup has been found useful in the *Coughs*

of Childhood. Take of fresh Abrus roots, the larger sized the better, well bruised, two ounces; and Abclmoschus capsules sliced, one ounce; boil in a pint of water for half an hour, and strain; to the liquor add eight ounces of sugar candy or honey, and boil down to the consistence of a syrup. From a tea to a dessert-spoonful may be freely given several times a day when the cough is troublesome, whether fever is present or not. It forms also a good adjunct to other more active cough mixtures. The great objection to this, in common with all syrups in India, is the readiness with which it undergoes fermentation; hence only small quantities should be prepared when cases occur requiring its use.

7. *Acacia, or Babúl Bark.* The bark of *Acacia Arabica*, *Willd.**

Babúl-ka-chál, Kíkar-ka-chál (*Hind.*), Kali-kíkar-kí-chilká (*Duk.*), Babúl-sál (*Beng.*), Karu-vélam-pattai (*Tam.*).

8. Babúl bark occurs in large thick pieces, coarsely fibrous, of a deep mahogany colour, and astringent bitterish taste. It is an excellent astringent, and though less powerful than some other of the same class, it possesses the advantage of being obtainable, either in the fresh or dried state, throughout India, the tree yielding it being common everywhere in dry sandy localities.

* A gum is yielded by this tree, but it is very inferior to the officinal gum Arabic, for which a far better substitute is yielded by the Wood-apple tree, *Feronia elephantum*, *Corr.*

9. The best form for medical purposes is a decoction prepared by boiling one ounce and a half of the bruised bark in a pint of water for ten minutes, and straining. Of this the dose is from one and a half to two ounces twice daily, or oftener in *Chronic Diarrhœa*, &c. ; it is, however, chiefly employed as an external or local application—as an injection in *Leucorrhœa and other Vaginal Discharges* ; as an enema in *Piles and Prolapsus (Descent) of the Anus*, and as a gargle in *Sore Throat, and in Sponginess and Ulceration of the Gums*. In all these cases, however, it is generally used conjoined with alum and other agents.

10. **Acorus, or Sweet Flag Root.** The root stock of *Acorus Calamus*, *Linn.*

Bach or Vach (*Hind., Duk.*), Bach, Saféd Bach (*Beng.*), Vashambu (*Tam.*), Vasa, Vadaja (*Tel.*), Vash-anpa (*Malyal*) Bajé (*Can.*), Vékhandá (*Mah.*), Vaj, Vach (*Guz.*), Lene or Linhe (*Burm.*)

11. This is one of the commonest of bazaar medicines, and generally procurable everywhere, of good quality, at a very small cost. It occurs in pieces of various lengths, about the thickness of the thumb, rather flattened, spongy, provided with numerous sheath-like, ringed appendages ; odour peculiar and aromatic ; taste, bitterish, warm and somewhat acid. Till very recently, it was included in the British Pharmacopœia. It well deserves a place in every Indian domestic medicine chest.

12. It is a tonic and stomachic of no small value,

and is best given in the form of infusion: one ounce of the bruised root to half a pint of boiling water, in doses of a wine-glassful twice or thrice daily. Combined with Chiretta, it has been reported to cure *Intermittent Fevers in natives*, but though its power in this respect is doubtful, except, perhaps, in cases of the mildest description, yet *in Convalescence after this and other forms of Fever*, a mixture of equal parts of the infusions of Acorus and Chiretta (98) is as good a formula as can be employed. The same combination proves also most serviceable in *Dyspepsia, especially when attended with much flatulence, in Loss of Appetite and Constitutional Debility*.

13. *In Chronic Diarrhœa, and in that which precedes Cholera*, the simple infusion, with the addition of a few drops of laudanum, has been favourably spoken of.

14. This root, especially when freshly collected, and retaining its full aroma, is reported, on good authority, to drive away fleas and other insects, a fact well to bear in mind in a sick room, as well as elsewhere.

15. **Aloes.** The inspissated juice of Aloe Socotrina, *Linn.*, and other species of Aloe.

Musabbar, Ilvá, Yalvá (*Hind.*), Musanbar (*Duk.*)
 Móshabbar (*Beng.*), Kariya-pólám, Irakta-pólám
 (*Tam.*), Múshámbarám (*Tel.*), Chenna-náyakam
 (*Malyal.*), Musam-bara-bóla (*Mah.*), Yéliyo (*Guz.*),
 Kalu-bólám, Kari-bolám (*Cing.*), Mo (*Burm.*).

16. Aloes, as met with in the bazaars, is generally imported, and of a very inferior description, but it may be rendered fit for medical use by the following

process:—Take of bazaar Aloes, in small fragments, one pound; boiling water, one gallon; stir them well together until they are thoroughly mixed, and set aside for twelve hours; then pour off the clear liquor, strain the remainder, mix the liquors, and place in open vessels in the sun, or over a gentle fire, till it is evaporated to dryness.*

17. The principal use of Aloes is as a purgative, in doses of from three to six grains. If administered alone, it is apt to cause griping, nausea, etc.; hence, it is generally given in combination with aromatics, &c. It is ill adapted for children, for persons subject to piles, and for pregnant females.

18. Few medicines are more generally useful for women when suffering from an *Irregular or Suspended state of the Menstrual Discharge*; but it should not be given during pregnancy, nor whilst the menstrual discharge is present. In these cases, especially when the patient is pale, thin, and weak, it is best given as follows:—Take purified Aloes and Sulphate of Iron, of each, finely powdered, 24 grains; Cinnamon in powder, 60 grains; Honey, sufficient to make a mass; be careful that all the ingredients are well mixed; and divide into 24 pills, of which two are to be taken twice daily.

19. The following is another very good combina-

* Aloes of very good quality may also be prepared from two indigenous species of Aloe, *A. Indica*, *Royle*, and *A. litoralis*, *König*; the former inhabiting dry sandy plains in the North-western Provinces, and the latter similar localities on the sea coasts of the Madras peninsula. The viscid juice with which the thick leaves abound should be collected and evaporated to dryness by exposure in open pans in the sun or over a gentle fire.

tion:—Take Aloes and Assafoetida, of each 20 grains ; beat into a mass with honey, and divide into 12 pills, of which one may be taken twice daily. These pills often prove of great service to women subject to *Hysterical fits*, and *Flatulent distension of the Abdomen*, especially when at the same time there is *Constipation of the Bowels*. In *Headaches arising from the sudden stoppage either of the menstrual discharge or of long-standing bleeding from piles*, these pills often prove useful. Aloes should not be given to persons subject to piles, as it is apt to aggravate the disease.

20. In cases of *Habitual Constipation of the Bowels* great benefit has been found from the persevering use of the following pills:—Take of purified Aloes, 18 grains ; Sulphate of Iron, 30 grains ; beat into a mass with a little honey, and divide into 24 pills. Of these, one may be taken three times a day, immediately after the principal meals, till they begin to act upon the bowels gently, and then the number may be reduced to two daily. At the end of a week or two, another pill may be omitted, and within a month, a single pill once or twice a week will suffice. If at any time they should act powerfully on the bowels as a purgative, they should be discontinued for a time.

21. Alum.

Phitkari (*Hind.*), Phitkiri (*Beng.*), Pati-káram (*Tam., Tel.*), Chinik-káram (*Malyal*), Pati-kará (*Can.*), Patikár, Turatí (*Mah.*), Sina-karam (*Cing.*), Keo-khin (*Burm.*).

22. Alum of good quality is generally procurable in all bazaars. It should be in colourless, transpa-

rent, crystalline masses, or pieces of various sizes, with an acid, sweetish, astringent taste. When mixed with impurities, as it often is, it may be rendered fit for medicinal purposes by dissolving it in boiling water, straining the solution, and evaporating it so as to obtain crystals, which should be preserved for use. Alum, whether applied externally or given internally, is a valuable astringent. Dose, from 10 to 20 grains for adults.

23. In that form of *Ophthalmia* commonly known in India by the name of *Country Sore Eyes*, especially when it attacks children, a solution of Alum is often of great service. For children, the strength of three grains to an ounce of water is sufficient; but for adults, a solution of double this strength may be used; the eyes should be freely washed with it four or five times a day, or a cloth wet with it may be kept constantly applied. If the eyelids are much swollen, especially in the morning, they should be well bathed with warm milk, the eyelids should then be carefully separated, and the alum lotion dropped in. There is a native plan of treatment of these cases which proves in many instances effectual, but it has the disadvantage of being very painful for a short time. It is as follows:—Place some finely-powdered alum on a heated plate of iron, and whilst it is in a state of fusion, add a small portion of lemon or lime juice, until it forms a black, soft mass. This, whilst hot, is applied entirely round the orbit, care being taken that none of it gets beneath the eyelids, as it causes under these circumstances intense agony. One or two applications, each being allowed to re-

main on for twelve hours suffice ordinarily to effect a cure.

24. *After severe Blows on the Eye*, when the pain and heat have subsided, and much discoloration and swelling remain, an alum poultice is an effectual application. It is made by rubbing up 30 grains of powdered Alum with the white of an egg till it forms a coagulum. This placed between two pieces of thin rag or muslin, should be kept applied to the eye for some hours.

25. *In Hæmorrhage from the Lungs, Stomach, Kidneys, Uterus, and other Internal Organs*, Alum, in doses of 10 to 12 grains, thrice daily, with or without opium, may often be given with advantage. It is, however, inadmissible if much fever is present, and should at once be discontinued if after the first few doses the symptoms are at all aggravated. The following, called Alum Whey, is a good form of administration:—Boil for ten minutes two drachms of powdered Alum in a pint of milk, and strain; of this, the dose is one and a-half to two ounces thrice daily. This may also be given with the view of checking *Excessive Menstrual Discharges* (*Menorrhagia*) and *Bleeding from Piles*. In this last case, cloths saturated with a solution of Alum in decoction of Galls (145) or Babúl bark (9), in the proportion of two drachms to eight ounces, should be kept constantly applied externally. This application also proves useful in *Prolapsus* (*Descent*) of the *Anus*, especially in children. *Profuse Bleeding from the Nose* may often be arrested by the injection of a solution of Alum (20 grains to one ounce of water) into the

nostril ; care, however, is required in its use. Powdered Alum, applied locally on a compress, often suffices to arrest *Bleeding from Leech-bites*.

26. *In the Chronic Diarrhœa of Natives*, the following mixture has been found useful:—Take of Alum ten grains, infusion of Acorus root (12), one and half ounce, Laudanum, five drops ; repeated three or four times daily. *In the Diarrhœa which precedes Cholera, and in the early stages of Cholera*, the following powders are worthy of a trial. Take Alum, Catechu, and Cinnamon, of each, powdered, ten grains, mix with honey, and give at a dose. It may be repeated every one or two hours, according to circumstances. It proves useful also in controlling the *Diarrhœa of Phthisis*.

27. As a palliative in *Diabetes*, “alum whey,” prepared as directed in paragraph 25, may be tried ; under its use the quantity of urine voided is, in some instances, diminished.

28. *In Hooping Cough*, when the first or acute stage has passed, no remedy is more generally efficacious than Alum, in doses of three or four grains, every four or six hours for a child from two to three years old. It may be given in the form of powder or in solution (Alum 25 grains, Omum Water three ounces), in doses of a dessert-spoonful every four or six hours for a child from two to four years old.

29. *For Relaxed or Ulcerated Sore Throat, for Ulceration and Sponginess of the Gums, in Salivation, and in Fissure of the Tongue in Consumption*, a very useful gargle or mouth wash, is made by dissolving two drachms of Alum in a pint of the decoction of Galls (145) or

Babúl Bark (9), and sweetening with honey. *For the small white Ulcers (Aphthæ or Thrush), in the mouths of infants and young children,* a better application is 20 grains of finely-powdered Alum, incorporated with one ounce of honey. This may be applied twice daily, with the tip of the finger.

30. There is a disease often confounded with *Gonorrhœa*, where the discharge does not come, as it does in true gonorrhœa, from the urethra, but from a sore or excoriated surface between the prepuce and the head of the penis. For this there is no better application than a solution of Alum, 20 grains in one ounce of water. It may be used twice or thrice daily. The strictest cleanliness should be enforced at the same time. *In Gleet,* a solution of Alum (three grains), in water (one ounce), used, as an injection, twice daily, is often productive of benefit. *In Leucorrhœa and other Vaginal Discharges,* injections of alum in decoction of Galls or Babúl bark, as advised in the last paragraph, often prove very useful.

31. *In old chronic spreading and gangrenous Ulcers,* so common amongst natives, the following forms an excellent application:—Finely powdered Alum, four drachms; finely-powdered Catechu, one drachm; Opium, half drachm; Ceromel (167), or Kokum butter, or ghee, one ounce. First, rub down the opium with the ceromel till thoroughly mixed, and then incorporate the other ingredients. A portion of this, spread on soft rag, should be applied to the ulcer night and morning. If it occasion much pain, the proportion of ceromel should be increased.

32. *For Enlargement of the Joints, especially that of*

the *Knee*, and for other Swellings resulting from Blows, Bruises or Sprains, the following lotion has been found useful :—Alum, four drachms ; Vinegar and Arrack, of each a pint ; dissolve, and keep cloths wet with this lotion constantly to the affected parts.

33. Assafœtida.

Hing (*Hind.*, *Duk.*, *Beng.*, *Mah.*, *Guz.*), Káyam, Perun-gáyam (*Tam.*), Inguva (*Tel.*), Perun-gáyam, Káyam (*Malyal*), Perun-káyam (*Cing.*), Shinkhu or Shingu (*Burm.*).

34. Assafœtida of good quality may be obtained in most bazaars. The moister and most strongly smelling kinds should be chosen for medical purposes. It may be given in the form of pill, in doses of from five to ten grains ; or in that of mixture, prepared by rubbing down in a mortar five drachms of Assafœtida in a pint of hot water, and straining, and setting aside to cool. Of this solution, which is thick and milky, the dose is from one to two tablespoonfuls. Its nauseous taste is a great objection to its use.

35. In *Hysterical Fits* and in *Fainting Nervous Palpitations*, and other affections connected with *Hysteria*, Assafœtida proves most useful. When the symptoms are urgent, as in fits, &c., it is best given in the liquid form (*ante*), but where the object is rather to combat the tendency to this state, and to make an impression on the system, the solid form should be preferred. For this purpose it may be advantageously combined with aloes, as advised in Sect. 19.

36. In *Flatulence*, *Flatulent Colic*, and *Spasmodic*

Affections of the Bowels, especially when connected with hysteria, it is best given in the form of enema (30 grains in four ounces of water), but if this is not practicable, it may be given by mouth in the liquid form advised above. A teaspoonful of the mixture, with a little Omum water, is often very effectual in relieving the *Flatulent Colic of Children*. It may also be tried in the *Convulsions of pale weakly children*. An Assfœtida enema is an effectual means of removing *Thread worms* from the rectum and lower bowels.

37. *In the obstinate Coughs of Childhood*, remaining after attacks of inflammation, and also *the advanced stages of Hooping Cough*, the mixture has also occasionally been found of great service in doses of a teaspoonful four or five times a day. It has also been recommended in the *Chronic Bronchitis and Asthma of Adults*; its disagreeable smell and taste is a great bar to its use, but this may, in a great measure, be obviated by giving it in the form of pills.

38. *Asteracantha (Barleria) longifolia, Nees.*

Talmakháné, Gokshura (*Hind*), Kolsí (*Duk.*), Kánta-koliká (*Beng.*), Nir-mulli (*Tam.*), Niru-gobbi (*Tel.*) Vayal-chulli (*Malyal*), Kolava-like (*Can.*). Tál-makháná (*Mah.*), Ikkiri (*Cing.*), Súpadán (*Burm.*).

39. The whole of this plant, common in moist sites throughout India, but especially the root, which, in the dried state, is sold in the bazaars, enjoys a high repute amongst the natives as a diuretic in

Dropsical cases, which European experience has, in a great measure tended to confirm. It may be given in the form of decoction, prepared by boiling one ounce of the root in a pint of water for ten minutes, straining, and taking the whole in divided doses during the day. The following is advised by Mr. Kanny Loll Dey :—Take of freshly dried *Asteracantha* leaves, two ounces; Distilled Vinegar, 16 ounces; macerate for three days; press and strain. Of this, the dose is from one to three tablespoonfuls in water thrice daily.

40. *Atís*, or *Atees*. The root of *Aconitum heterophyllum*, *Wallich*.

Atís (*Hind.*), *Atviká* (*Duk.*), *Ati-vadayam* (*Tam.*),
Ati-vasa (*Tel.*).

41. *Atís*, as met with in the bazaars, occurs in the form of small tuberous roots, tapering towards a point, from one to one and a-half inches, or more, in length, and from three-eighths to a quarter of an inch in thickness; grey externally, slightly wrinkled longitudinally, and marked here and there with rootlet scars, easily friable; internally white, farinaceous, inodorous, and of a pure bitter taste, devoid of acidity or astringency. This last character serves to distinguish it from all other roots sold under the same name. Every root should be broken across, and all which are not pure white, with a short, starchy fracture and pure bitter taste should be discarded. Further, if on chewing a small piece, it causes a feeling of tingling or peculiar sensation on the tongue, followed by even the smallest degree of

numbness or altered sensation, it should on no account be used.

42. The chief use of Atís is in the treatment of *Intermittent Fever and other periodical fevers*, and in these it often proves most valuable. It should be given in doses of half a drachm (30 grains), mixed with a little water, every four or six hours during the intermissions, commencing its use during or towards the close of the sweating stage. For children the dose may be reduced one-half, or three-fourths, according to age. For combatting the *Debility after Fevers and other diseases*, Atís is an excellent tonic, in doses of five to ten grains thrice daily.

43. **Bael Fruit.** The fruit of *Ægle Marmelos*, *Corr.*

Bél, Si-phal (*Hind., Beng.*), Bél-phal (*Duk.*), Vilva or Bilva-pazham (*Tam.*), Bilva-pandu, Máraédupandu (*Tel.*), Kúvalap-pazham (*Malyal*), Bilapatri-hannu (*Can.*), Bél-phal (*Guz.*), Béláchaphala, Béla (*Mah.*), Bélli, Bélli-ka (*Cing.*), Ushisi, Ushi-ti (*Burm.*).

44. The half-ripe fruit is best suited for medical use, and that freshly gathered is preferable to that which has been kept a long time, as is generally the case with the bazaar article.* European experience

* In bazaar specimens, the Wood-apple (fruit of *Feronia Elephantum*) is often substituted for Bael. Though they bear a close resemblance externally, they can easily be distinguished by opening them. In the true Bael, there are, in the centre of the pulp, a number of cells, from five to eighteen, each containing one or more seeds and glutinous mucus, whilst in the Wood-apple there are no cells, and the seeds are embedded in the pulp

has confirmed the native opinion that it is a remedy of much value in cases of *obstinate Diarrhœa and Dysentery*, when unattended by fever, and the patient is weak and dyspeptic. It proves especially serviceable when any signs of *Scurvy* are present. It is best given as follows:—Take of the soft gummy fluid from the interior of the fruit two ounces, mix this with three or four ounces of water, sweeten to taste, and, if procurable, add a lump of ice. This draught should be repeated twice or thrice daily. *In the obstinate Diarrhœa and Dysentery of Children*, it may be safely given in doses of from one quarter to one half the above quantity, according to age.

45. *In Irregularity of the Bowels, presenting alternations of Diarrhœa and Constipation*, one draught, as described in the last section, taken in the early morning, often exercises a most beneficial effect in regulating the bowels. Where much debility exists, and the stomach is weak and irritable, it is apt to disagree, occasioning eructations, &c., in which case it may be tried in smaller doses or given at bed time, in place of early morning.

46. **Betel or Betle Leaves.** The fresh leaves of *Chavica* (*Piper*) *Betle*, *Retz*.

Pán (*Hind.*, *Duk.*, *Beng.* and *Guz.*), *Vettilai* (*Tam.*), *Tamala-páku*, *Nága-valli* (*Tel.*), *Vetrila* (*Maljal*), *Vilcdele* (*Can.*), *Videchapána* (*Mah.*), *Balát* (*Cing.*), *Kún-yoe* (*Burm.*).

47. These leaves are in almost universal use amongst the natives of India, as a masticatory, in

conjunction with lime and areca nut. There are two ways in which they may be usefully employed medicinally :—

48. *In Coughs, especially those of Infancy and Childhood, where there is difficulty of breathing*, the application of betel leaves, warmed, smeared with oil, and applied in layers over the chest, often affords speedy and marked relief. It is a native practice, the utility of which has been confirmed by European experience. It can do no harm, may do much good, and is therefore worthy of a trial in all cases. The same application has been recommended in *Congestion and other affections of the Liver*.

49. For the purpose of *Arresting the Secretion of Milk*, when from any cause this may be desirable, betel leaves, warmed by the fire, and placed in layers over the breasts, are stated to be very effectual. Thus employed they are also said to be useful in reducing *Glandular Swellings*.

50. **Bonduc Nut.** The fruit of *Cæsalpinia* (*Guilandina*) *Bonducella*, *Linn.*

Kat-kalijá, Kat-karanj (*Hind.*), Gajgá (*Duk.*), Nátá, Nátú-koranjá (*Beng.*), Kazhar-shik-káy, Kalishik-káy (*Tam.*), Gech-chak-káya (*Tel.*), Kalanchik-kuru (*Malyal.*), Gajaga-káyi (*Can.*), Gajaga (*Mah.*), Gájgá (*Guz.*), Kumbura-atta (*Cing.*), Kalén-zi (*Burm.*)

51. These nuts, common in all the bazaars of India, are roundish or ovoid in shape, about half an inch or more in diameter, smooth, hard, of a grey or

leadens colour externally, contain a white starchy kernel of a pure bitter taste.

52. *In Intermittent Fevers*, especially in those of the natives, this remedy has been found very useful. It is best given in the following form:—Take of Bonduc seeds, deprived of their shells and powdered, one ounce; Black Pepper powdered one ounce; mix thoroughly and keep in a well-stoppered bottle. Of this the dose is from 15 to 30 grains three times a day for adults. In smaller doses it is a good tonic in *Debility after Fevers and other diseases*. The bark of the root of the Bonduc shrub in 10 grain doses is reported to be even more effectual in the above cases than the seeds themselves.

53. Borax. Biborate of Soda.

Sohágá, Tinkál (*Hind.*), Sohágá (*Beng., Duk.*), Venkáram (*Tam.*), Elegáram (*Tel.*), Ponkáram, Vella-karam (*Malyal.*), Biligárá (*Can.*), Vengáram, Puskara (*Cing.*), Lakhiya, Let-khya (*Burm.*)

54. Borax of good quality is met with in most bazaars; if good it should be in transparent, colourless, crystalline masses or pieces of various sizes, inodorous, with a cool saltish taste. After having been exposed to the air for some time, as that found in the bazaars has generally been, it becomes covered with a whitish powder or efflorescence, which being removed shows the transparent crystal beneath. If brown or dirty, or otherwise impure, it may be rendered fit for medical use by dissolving one pound of it with one draehm of quicklime in three pints of

water, straining through cloth and evaporating by exposure to the sun in an open vessel or over a gentle fire. Dose from 20 to 40 grains for an adult.

55. *In Aphthæ or Thrush* (small white spots and ulcerations in the mouths of infants and young children) a mixture of powdered Borax (1 drachm) and Honey (1 ounce) is one of the best applications which can be used; it should be applied by means of the finger to the spots twice or thrice daily. *In Fissures or Cracks in the Tongue in adults, which occur in the advanced stages of Consumption, Fever, &c.*, an application twice the strength of the above, proves highly serviceable. *In Mercurial Salivation* a solution of Borax (half an ounce), in water (eight ounces) forms an excellent gargle.

56. *To Sore Nipples* a solution of Borax, one drachm to one ounce of water, should be applied before and after suckling the infant, or it may be employed in the form of ointment (a drachm of Borax to an ounce of ghee). These applications are also serviceable when applied to *inflamed and painful Piles*.

57. *As a means of allaying the distressing Irritation of the Genital Organs, both of males and females*, the latter especially, a solution of Borax (half an ounce) in eight ounces of water or Camphor julep (67) sometimes affords more relief than anything else. Cloths saturated with it should be kept to the parts, and in the case of women it should also be used in the form of vaginal injection. It also proves very useful in allaying the *Irritation of Nettle-rash, Prickly Heat, and other Skin Diseases*.

58. *In prolonged and tedious Labours*, dependent

apparently on want of action or power in the uterus to expel the foetus, and in *Abortion* under the same circumstances, 20 grains of Borax with 10 grains of powdered Cinnamon in a little warm conjee may be given every one or two hours to the extent of three or four doses. This may also be given in *Convulsions attendant on Labours*. In doses of ten grains, with ten of Cinnamon, thrice daily, it also occasionally proves useful in *Suspension or Irregularity of the Menstrual discharge*.

59. *To ulcerated Buboës and Sloughing Ulcers* a solution of Borax (two drachms in a pint of water or Camphor julep) often proves very useful by cleansing the surface and hastening the healing process. It should be applied on rags well over the whole sore, and renewed frequently by night and day. For dressing *Delhi Sores* and stimulating them to healthy action, a favourite application is composed of Borax, Sulphur, and Catechu, of each finely powdered, one drachm, and lard or ghee one ounce. It may be advantageously used in other forms of *Ulceration*.

60. *For Ringworm* a solution of Borax (one drachm) in distilled vinegar (two ounces) is stated to be an effectual application.

61. **Butea Gum.** Bengal Kino. The inspissated juice obtained from the stems of *Butea frondosa*, Roxb.*

Palás-kí-gond (*Hind., Duk.*), Pálásh-gun (*Beng.*),
Muruk-kan-pishin, Palásha-pishin (*Tam.*), Pal-

* *Pterocarpus Marsupium*, *D. C.*, which yields the officinal Kino, inhabits the forests of Ceylon and the Indian Peninsula as

ášha-banka, Móduga-banka (*Tel.*), Plách-cha-pasha (*Malyal*), Muttaga-góndu (*Can.*), Phalásacha-gónda (*Mah.*), Khákar-nu-gún (*Guz.*), Káliya-melliyam (*Cing.*), Páv-si (*Burm.*)

62. Butea Gum occurs in the form of irregular shining fragments, seldom as large as a pea, more or less mixed with adherent pieces of greyish bark, of an intense ruby colour and astringent taste. Its astringency is due to the presence of tannic and gallic acids. It is an excellent astringent, similar to Catechu, but being milder in operation, it is better adapted for children and delicate females. The dose of the powdered gum is 10 to 30 grains, with a few grains of powdered cinnamon. It may be used with advantage in *Chronic Diarrhœa*, *Pyrosis* (*Water brash*), and in those forms of *Dyspepsia* attended with increased secretion. In these cases the addition of a small portion of opium increases its efficacy.

63. Butea Seeds. The seeds of *Butea frondosa*, *Roxb.*

Palás-ké-bínj (*Hind.*), Palás-páprá (*Duk., Beng.*), Porasum-virai, Murukkam-virai (*Tam.*), Paláša-vittulu, Moduga-vittulu (*Tel.*), Plášhu, Murukka-vitta (*Malyal.*), Muttaga-bijá (*Can.*), Phalásá-cha-bí (*Mah.*), Palás-páparo (*Guz.*), Káliya-atta (*Cing.*), Páv-si (*Burm.*)

far north as Behar; but almost all, if not the whole, of the Kino met with in bazaars is the produce of *Butea frondosa* or *B. superba*; but this is a matter of little moment, as it appears to be equally effectual as an astringent.

64. Butea Seeds are thin, flat, oval, or kidney-shaped, of a mahogany brown colour, $1\frac{1}{4}$ to $1\frac{3}{4}$ inches in length, almost devoid of taste and smell. European experience has confirmed the high opinion held by the Mohammedan doctors as to their power in expelling *Lumbrici*, or *Round Worm* so common amongst the natives of India. The seeds should be first soaked in water and the testa or shell carefully removed, the kernel should then be dried and reduced to powder. Of this the dose is 20 grains thrice daily for three successive days, followed on the fourth day by a dose of castor oil. Under the use of this remedy, thus administered in the practice of Dr. Oswald, 125 lumbrici in one instance, and between 70 and 80 in another, were expelled. It has the disadvantage of occasionally purging, when its vermifuge properties are not apparent; in some instances also it has been found to excite vomiting and to irritate the kidney, and though these ill effects do not ordinarily follow, yet they indicate caution in its employment.

65. Camphor.

Káfúr (*Hind.*), Káphúr (*Beng.*), Karuppúram or Karpúpáram (*Tam.*), Karpúram (*Tel., Malyal.*), Karpúra (*Can.*), Kapúra (*Mah.*), Kapúr, Karpúr (*Guz.*), Kapuru (*Cing.*), Payo, Piyo (*Burm.*)

66. Several varieties of Camphor are met with in the bazaars. That best suited for medicinal use should be in masses or lumps, white, translucent, of

a crystalline structure, of a powerful penetrating odour, and pungent taste. Much of the camphor sold in the bazaars is worthless. Dose, from two to five grains or more for an adult.

67. Camphor Water, or Julep, as it is commonly called, may always be advantageously kept ready prepared for domestic use; it is made by adding two drachms of Camphor to a quart bottle of water, and setting aside for a few days. Of this the dose for an adult is about a wineglass full. It is a good vehicle for other medicines.

68. With Camphor, a very useful Liniment may be formed by dissolving one ounce of it in six ounces of Cocoa-nut, Sesamum, or other bland oil. It is an excellent application in *Chronic Rheumatism, Lumbago, Enlargement of the Joints, Glandular Swellings, Bruises, Sprains, Muscular Pain, especially that of the loins to which women are subject during Pregnancy and the Menstrual periods*, and other cases attended with local pain. It should be well rubbed in night and morning for ten or fifteen minutes.

69. In *Chronic Rheumatism*, in addition to its use externally, as advised in the last paragraph, it may be given internally in a dose of five grains with one grain of opium at bed time; it affords relief by causing copious perspiration, which should be promoted by a draught of infusion of Ginger (154) and by additional bedclothes. An excellent vapour bath for these cases may be made by substituting half-an-ounce of Camphor placed on a heated plate for the chattie of hot water described in Section 397. Thus employed, it causes speedy and copious perspiration. Care,

however, is necessary to prevent the patient inhaling the vapour, which is of comparatively little consequence when simple water is being employed.

70. *In Asthma*, Camphor in four grain doses, with an equal quantity of Assafoetida, in the form of pill, repeated every second or third hour during a paroxysm, affords in some instances great relief. Turpentine stupes (362) to the chest should be used at the same time. Many cases of *Difficulty of Breathing* are relieved by the same means. These pills also sometimes relieve violent *Palpitation of the Heart*. *In the Coughs of Childhood*, Camphor liniment (68), previously warmed, well rubbed in over the chest at nights, often exercises a beneficial effect. For young children, the strength of the liniment should be reduced one half or more by the addition of some bland oil.

71. *In Rheumatic and Nervous Headaches*, a very useful application is one ounce of Camphor dissolved in a pint of vinegar, and then diluted with one or two parts of water. Cloths saturated with it should be kept constantly to the part.

72. *In Spermatorrhœa, and in all involuntary Seminal discharges*, no medicine is more generally useful than Camphor in doses of four grains with half-a-grain of Opium, taken each night at bed time. *In Gonorrhœa*, to relieve that painful symptom, *Chordee*, the same prescription is generally very effectual, but it may be necessary to increase the quantity of opium to one grain, and it is advisable to apply the Camphor liniment (68) along the under surface of the penis as far as the anus. *To relieve that distressing Irritation*

of the *Generative Organs* which some women suffer from so severely, it will be found that five or six grains of Camphor taken in the form of pill twice or three times a day, according to the severity of the symptoms, will sometimes afford great relief. In each of these cases, it is important to keep the bowels freely open.

73. *In painful Affections of the Uterus*, Camphor in six or eight grain doses often affords much relief. The Liniment (68) should at the same time be well rubbed into the loins. *In the Convulsions attendant on Childbirth*, the following pills may be tried:—Camphor and Calomel, of each five grains. Beat into a mass with a little honey, and divide into two pills; to be followed an hour subsequently by a full dose of castor oil or other purgative.

74. *In the advanced stages of Fever, Small Pox, and Measles*, when the patient is low, weak, and exhausted, and when there is at the same time delirium, muttering, and sleeplessness, three grains of Camphor, with an equal quantity of Assafœtida, may be given even every third hour; Turpentine stupes (362) or Mustard poultices (247) being applied at the same time to the feet or over the region of the heart. It should be discontinued if it cause headache, or increased heat of the scalp. Its use requires much discrimination and caution.

75. *To prevent Bed Sores*, it is advisable to make a strong solution of Camphor in arrack or brandy, and with this night and morning to bathe, for a few minutes, the parts which from continued prostratio are likely to become affected.

76. *Capsicum*. The ripe dried fruit of *Capsicum fastigiatum*, *Blume*.

Lál-mirch, Gách-mirch (*Hind.*), Mirchí, Lál-mirchí (*Duk.*), Lal-morich, Lanká-morich (*Beng.*), Mul-agáy, Milagáy (*Tam.*), Mirapa-káya (*Tel.*) Kappal-melaka (*Malyal.*), Ménashiná-káyi (*Can.*) Mir-singá (*Mah.*), Lál-mirich, Marchu (*Guz.*), Miris (*Cing.*), Náyu-si (*Burm.*).

77. A powerful stimulant; the bruised fruit, applied locally in the form of poultice, acts energetically as a rubifacient, and, added to Mustard poultices, greatly increases their activity. In the absence of mustard, *Capsicum* poultices may be substituted, but being more energetic in operation, require more care; if left on too long they will cause blisters.

78. *In Scarlatina*, the following mixture has attained much repute in the West Indies. Take two tablespoonfuls of bruised *Capsicum* and two teaspoonfuls of Salt; beat them into a paste, and add half-a-pint of boiling Water; when cold, strain, and add half-a-pint of Vinegar. Dose for an adult, one tablespoonful every four hours; to be diminished for children according to age, or the severity of the attack. The same formula forms an excellent gargle in the *Sore Throat which accompanies this disease*, as well as in ordinary *Relaxed Sore Throat, Hoarseness, &c.*

79. *Capsicum* is a very useful adjunct to aloes and other remedies for *Dyspepsia, Loss of Appetite, &c.* *In Diarrhœa, arising from the use of putrid food, especially fish*, *Capsicum*, in five grain doses in the form of pill, has been found most useful.

80. *Cassia alata*, *Linn.* Ringworm Shrub.

Dádmurdan, Dád-ká-pát (*Hind.*), Dád-murdan, Dád-mari (*Beng.*), Dát-ká-pattá, Viláyatí-agtí (*Duk.*), Shimai-agatti, Vandu-kolli (*Tam.*), Shíma-avishi-chettu (*Tel.*), Shima-akatti (*Malyal.*), Shíme-agase (*Can.*), Attóra (*Cing.*), Timbómezali, Mezali-gi (*Burm.*).

81. This handsome shrub, with its large conspicuous spike of yellow flowers, is common in gardens and waste places throughout India. Its leaves have attained a well-earned repute as a local remedy in *Skin Diseases*, especially in *Ringworm*; hence one of its common English name of *Ringworm Bush or Shrub*. The ordinary form of application is a sort of ointment made by bruising the fresh leaves with Sesamum, Cocoa-nut, or other bland oil; but by far a better preparation is made by bruising the fresh leaves, with Lemon or Lime juice, into a thick paste. Whichever preparation is employed, it should be thoroughly well rubbed in over the affected part twice daily, till a cure is effected. The more recent the case the greater will be the prospect of a speedy cure. Long-standing chronic cases often resist its influence.

82. *Castor Oil.* The expressed oil of the seeds of *Ricinus communis*, *Linn.*

Arandí-ká-tél (*Hind.*), Yarandí-ká-tél (*Duk.*), Bhérandá-tail (*Beng.*), A'manak-kenney (*Tam.*), A'mudam (*Tel.*), Kottenná (*Malyal.*), Haralenne

(*Can.*), Eran-déla (*Mah.*), Dívás, Yerandi-nu-tél
(*Guz.*), Eндарu-tel (*Cing.*), Kesu-si (*Burm.*).

83. Castor Oil, of various degrees of purity, is met with in most bazaars. The dark brown viscid oil (obtained by boiling, and subsequent expression of the seeds) should be avoided, on account of its acidity. The best kind is clear, of a pale straw colour, and with a slightly nauseous taste. The "cold-drawn expressed oil" should also be used when procurable, as it generally is in most large bazaars.

84. Castor Oil is an excellent purgative, when the object is simply to clear out the bowels. It is especially adapted for children, and for women after confinements. The ordinary dose for a child is about a teaspoonful, but it may be gradually raised according to the age of the patient, to two tablespoonfuls (one ounce), which is the full dose for an adult. It is best given floating on milk, strong coffee, or Omum water.

85. The leaves of the Castor Oil plant deserve notice as a means of increasing the secretion of Milk. For this purpose a decoction is made by boiling a large handful of the plant in six or eight pints of water. With this the breasts are bathed for a quarter of an hour, and then the boiled leaves, in the form of a poultice, spread over them. In a few hours the effects of the application are manifest. A simpler mode of application, said to be equally effectual, consists in applying layers of the fresh leaves, simply warmed before a fire, over the breasts.

86. *Catechu*. An extract from the heart-wood of *Acacia Catechu*, *Willd.*

Kát, Kath (*Hind.*), Kát (*Beng.*), Kathah (*Duk.*),
 Káshu, Kátta-kámbu (*Tam.*), Kánchu (*Tel.*),
 Kátta (*Malyal.*), Káchu (*Can.*), Kath-tho (*Guz.*),
 Kaipu (*Cing.*), Sházi (*Burm.*).

87. Several varieties of *Catechu* are met with in the bazaars. That best adapted for medical use occurs in the form of masses consisting of layers, occasionally enveloped in rough leaves, of a blackish brown colour, easily fractured, of a very astringent taste.

88. *In Diarrhœa, unattended by Fever*, *Catechu* is of much value; ten or fifteen grains in powder, with an equal quantity of powdered Cinnamon, may be given in honey or jaggry three or four times a day, if necessary, or it may be given in infusion prepared by macerating three drachms of bruised *Catechu* and one drachm of bruised Cinnamon in a half-pint of boiling Water for two hours, and straining. Dose, from one-and-a-half to two ounces thrice daily. From five to ten drops of Laudanum to each dose adds to its efficacy, or one grain of Opium may be given at bed time. These doses are suited only for adults; for *the Diarrhœa of Children*, three or four grains of finely powdered *Catechu*, with an equal quantity of powdered Cinnamon, generally answers well.

89. *In Mercurial Salivation, in Ulceration and Sponginess of the Gums*, a small piece of *Catechu* allowed slowly to dissolve in the mouth is often of

great service. The same measure is often useful in *Relaxed Sore Throat, Hoarseness, Loss of Voice, &c.* In *Toothache*, where there is a decayed tooth, with a piece of loose flesh growing within, great relief sometimes results from inserting into the hollow a small piece of Catechu, and retaining it there till it is dissolved.

90. *Chronic Ulcerations, attended by much or fœtid discharge*, often speedily improve under the use of an ointment composed of a drachm of finely-powdered Catechu and an ounce of lard or Ceromel (167). In obstinate cases the addition of sixteen grains of finely-powdered Sulphate of Copper to the above greatly increases its efficacy. Another mode of treating these old ulcers is bathing them twice or thrice daily with an infusion of Catechu (six drachms to a pint of water), and dressing in the intervals with Ceromel. The above infusion proves effectual in some instances as a preventative of *Sore Nipples*, for which purpose the breasts should be bathed with it daily, for some six weeks prior to the confinement, and thus the tissues become so hardened that when the infant begins to suck any ill effects are obviated.

90 bis. Charcoal Wood, Charcoal.

Lakrí-ká-kóyelah (*Hind.*), Lakri-ká-kólsá (*Duk.*), Kásh-tha-kóyalá (*Beng.*), Aduppu-kari (*Tam.*), Katta-boggu (*Tel.*), Atuppa-kari, Mutti-kari (*Malyal*), Kattige-iddallu (*Can.*), Láka-dácha-kólasé (*Mah.*), Lákdú-kóelo (*Guz.*), Thén-míşu-e (*Burm.*), Angurn (*Cing.*)

91. Charcoal is an article of great importance in

a sanatory and medical as well as in an economical point of view. It possesses no mean power as a deodorizer, and in close sick rooms the smell of the air is deprived of much of its unpleasantness by hanging about the apartment thin muslin bags loosely filled with roughly-powdered charcoal. The charcoal requires to be renewed occasionally. For purifying water an effectual plan is to boil it with a good sized piece of freshly prepared charcoal; it also forms an excellent filter, placed in alternate layers with river sand, as is in use by the natives of Southern India. Charcoal, especially that of the Areca or Betel nut, forms an excellent tooth-powder, but it is essential that it should be *very* finely powdered, or it may scratch the enamel of the teeth. Lastly, it is of great value in forming the CHARCOAL POULTICE, which is made by adding finely-powdered Charcoal to a common Rice poultice (322) in proportion of one part of the former to three of the latter. A little of the charcoal should also be sprinkled over the surface of the poultice previous to applying it. This is a valuable application to *Ulcers and Wounds attended by a fœtid discharge*; it proves useful in correcting the bad odour and stimulating to healthy action.

92. Chaulmúgra.* (The seeds of *Gynocardia odorata*, *R. Brown.*)

* In Southern India, where Chaulmúgra is rarely obtainable, the oil of the seeds of a tree of the same family, *Hydnocarpus incubrians*, *Vahl.* (*Néradi-muttu Tam*, *Niradi-vittutu Tel.*), seems well worthy of a trial. This oil has a great repute amongst the natives of Malabar as a remedy in leprosy.

Chaulmúgra or Chál-mogré-ké-bínj (*Hind.*)

93. Chaulmúgra seeds are about an inch in length, of an ovoid form, rendered more or less irregular by mutual compression. The shell, greyish-brown, smooth and fragile, contains a large kernel, which by expression yields a fixed oil, which has a peculiar and slightly unpleasant smell and taste. The oil procured from the bazaar is usually impure, and hence objectionable for internal administration.

94. *In Leprosy* Chaulmúgra has been used with excellent effect; it has also been advantageously administered in *Scrofula, Skin Diseases, and Chronic Rheumatism*. The dose of the seeds coarsely powdered is about six grains, thrice daily, in the form of pill, gradually increased to three or four times that amount, or until it causes nausea, when the dose may be diminished, or the use of the remedy suspended for a time. This is the best form of administration. The dose of the oil is from five to six drops, gradually increased, as in the case of the seeds. During the use of this remedy it is considered advisable to avoid all salt meats, acids, spices, and sweetmeats, but to aid its operation with butter, ghee, and oily articles of diet. It might, perhaps, be advantageously combined with a course of fish-liver oil.

95. An ointment, prepared by beating the seeds, deprived of their shells, into a paste of the requisite consistence, with a little ghee, or simple ointment, has been found of great service as a local application in some *Obstinate Skin Diseases*.

96. **Chiretta.** The dried plant *Ophelia Chirata*, *D.C.*

Charáyatah (*Hind., Duk.*), Shirat-kuch-chi, Nilavémbu (*Tam.*), Néla-vému (*Tel.*), Cherota (*Beng.*), Chiráyítá (*Mah.*), Chirayata (*Guz.*), Bincohamba (*Cing.*), Sekhági (*Burm.*)

97. Stems about three feet long, of the thickness of a goose quill, round, smooth, pale-brown, branched, branches opposite; flowers small, numerous, panicled; the whole plant intensely bitter. These characters belong to the officinal Chiretta, but there are met with, in almost every part of India, numerous varieties which differ more or less from it in many respects, except in bitterness, which pervades them all. They also partake, for the most part, in the same medicinal properties.

98. Chiretta is a good bitter tonic, and when procurable renders the practitioner in India independent of imported articles of the same class. It is best given as follows: Take Chiretta, bruised, one ounce, Boiling Water a pint; infuse for two hours and strain. Dose, from two to three ounces three times a day. A drachm of bruised Cloves, or Cinnamon, or Cardamom seeds increases its efficacy and improves its flavour. It may be given in all cases of *Debility, especially after Fevers, in Indigestion, Loss of Appetite, &c.* It may also be given in mild cases of *Ague or Intermittent Fever*; but this is spoken of in Art. Galls, *q.v.*

99. A good form of employing Chiretta as a tonic is to add two ounces of the bruised stems to a bottle

of sherry and let it stand for a week. Of this a wineglassful should be taken twice daily, one hour before meals, in *Indigestion, Loss of Appetite*, and other cases mentioned in the last section.

100. **Cinnamon.** The dried bark of *Cinnamomum Zeylanicum*, *Nees*.

Dár-chíní (*Hind.*), Dál-chíní (*Duk., Beng., Guz.*),
Lavanga-pattai, Karuvá-pattai (*Tam.*), Lavanga
patta (*Malyal., Tel.*), Dála-chini (*Can., Mah.*),
Kurundo (*Cing.*), Timbo-tik-yobo (*Burm.*).

101. The above names belong only to the true Cinnamon, which is procurable in most bazaars; it requires to be distinguished from the country Cinnamon, the bark of *Cinnamomum iners* (*Jangli-dal-chíní, Hind., Kattu-karuvá-pattai, Tam.*), which is very inferior. The former occurs in small closely-rolled quills, containing several smaller quills within them of a light yellowish-brown colour, fragrant odour, and warm sweet aromatic taste; the latter is a much larger and thicker bark, generally curved, but seldom completely quilled, the taste less sweet, with some degree of astringency, and the smell less fragrant.

102. Cinnamon is a pleasant aromatic stimulant and carminative, closely allied in medical properties and uses to Cloves (105), for which it may be substituted when the latter are not available. It is an agreeable adjunct to many other medicines.

103. **Cloves.** The dried unexpanded flower-buds of *Caryophyllus aromaticus*, *Linn.*

Lóng (*Hind., Beng.*), Lavang (*Duk.*), Kirámbu, Ilavangap-pú (*Tam.*), Lavango-pú, Lavangálu (*Tel.*), Karámpu (*Malyal.*), Lavanga (*Can., Mah.*), Lavang (*Guz.*), Krábu-nati (*Cing.*), Leniah-poén, Lenang-poén (*Burm.*)

104. The Cloves met with in the bazaars are often old and worthless. Those suited for medical use should have a strong, fragrant odour, a bitter, spicy, pungent taste, and should emit a trace of oil when indented with the nail.

105. Cloves are a good useful stimulant and carminative, stronger than Cinnamon, which, however, may be advantageously substituted when the former are either of inferior quality or not procurable. A pleasant and serviceable mixture is made by infusing 3 drachms of bruised Cloves in a pint of boiling water, and straining when cold. Of this the dose is from 1 to 2 ounces in *Indigestion, Flatulence, Colic and Spasmodic Affections of the Bowels*. It sometimes succeeds in checking *Vomiting, especially that attendant on Pregnancy*. A mixture of equal parts of the infusions of Cloves and Chiretta (98) has often excellent effect in *Debility, Loss of Appetite, and in Convalescence after Fevers*.

106. *Cocculus Indicus*. The fruit of *Anamirta Cocculus, W. et A.*

Kákmári-ke-bínj (*Hind., Duk.*), Kákâ-màri (*Beng.*)
 Kákkáy-kolli-varai, Pén-kottai (*Tam.*), Káká-
 mári, Káki-champa (*Tel.*), Karanta-kattin-káya,
 Pollak-káya (*Malyal.*), Kaka-mári-bíjá (*Can.*),
 Tittaval (*Cing.*)

107. The dried fruit, sold in most bazaars, is rather larger than a full-sized pea, somewhat kidney-shaped, blackish-brown, wrinkled, containing a yellowish, oily, bitter, kidney-shaped kernel inclosed in a two-valved shell. It is powerfully poisonous and is never administered internally; its sole use, and in this respect it is very effectual, is as an insecticide, *i.e.*, as an agent for destroying pediculi, or lice, which infest the body. For this purpose 80 grains of the seeds, divested of shell, should be beaten up into a paste in a mortar, and then thoroughly incorporated with an ounce of lard, kokum butter, or ghee. In applying this ointment, care should be taken to avoid all abraded or ulcerated surfaces, on account of the danger of absorption of the poisonous principle of the seeds.

108. Sulphate of Copper. Blue Stone.

Nilá-tútá (*Hind.*), Mór-tuttá, Mhor-tuttah (*Duk.*), Tutiya (*Beng.*), Mayil-tuttam, Turichu, Tuttam-turichi (*Tam.*), Mayilu-tuttam (*Tel.*), Turisha, Mayil-tutta (*Malyal.*), Mail-tutyá (*Can.*), Mór-túta (*Guz.*), Palmánikam (*Cing.*), Douthá (*Burm.*)

109. Sulphate of Copper, of fair quality, is procurable in most bazaars; it should be in crystalline masses, of various sizes, of a dark-blue colour, without any light-green or whitish powder adherent on the surface; if these exist they should be thoroughly removed previous to the salt being employed medicinally. Or it may be further purified by dissolving

in boiling water, filtering, and setting the solution aside to crystallize. In doses of from $\frac{1}{4}$ grain to 2 grains it acts as an astringent and tonic; in larger doses (5 to 10 grains) it is a powerful emetic.

110. *In Chronic Diarrhœa and Dysentery* the following pills are often productive of great benefit. Take finely-powdered Sulphate of Copper and Opium, of each 6 grains; thoroughly mix them with a small portion of honey, and divide into twelve pills, of which one should be taken thrice daily. These pills have been found very useful in controlling *Diarrhœa in the advanced stages of Consumption (Phthisis)*. *In the Chronic Diarrhœa and Dysentery of Children* a better form is 2 grains of the Sulphate dissolved in 12 drachms of Omum water; of this the dose is a tea spoonful thrice daily. In all these cases, should benefit not be manifest in a few days, the remedy should be discontinued.

111. *In Diphtheria* the Sulphate of Copper has been highly spoken of. Of a solution of 5 grains in 1 ounce of water, a tea-spoonful may be given to young children and repeated every half-hour till it produces vomiting. The same treatment has also been advised in cases of *Croup*. After the occurrence of free vomiting its use should be discontinued.

112. *In Ulcerations of the Mouth*, whether occurring in children or adults, 5 grains of finely-powdered Sulphate, incorporated with half an ounce of honey, is a very useful application. It may be easily applied to the ulcers by the finger.

113. *In the Ophthalmia of Children attended with copious discharge*, a solution of one grain in one ounce of water, applied several times a day, will often be found serviceable. In obstinate cases the strength may be doubled, but it should never be so strong as to cause pain.

114. *Obstinate Indolent Ulcers* will often yield, when other measures have failed, to the persevering application of solutions of the Sulphate, of graduated strengths, from 2 grains to 10 grains in the ounce of water. At the commencement the weakest solution is applied morning and evening, water dressing (394) being applied in the intervals. When the first solution ceases to occasion a feeling of heat in the ulcerated surface, the strength should be gradually increased by single grains till the 10-grain solution is borne, by which time the ulcer is generally almost healed. When the edges of the ulcer are hard and unyielding, they may be touched every second or third day with the Sulphate in substance; and it may also be thus used to check *Exuberant Granulations*.

115. *In Ring-worm and Scald-head* the following ointment has been found useful: Sulphate of Copper in powder, 20 grains; powdered Galls, 1 drachm; Ceromel, 1 ounce. Mix them thoroughly, and rub well over the diseased part. *In Itch*, a solution of one ounce of the Sulphate of Copper in a pint of water, will sometimes effect a cure. Previous to its use the scabs should be rubbed off.

116. *Excessive Bleeding from Leech Bites* may often be speedily arrested by the application of a little

powdered Sulphate of Copper. *In Bleeding from the Nose*, a solution of 4 grains of the sulphate in one ounce of water introduced into the nostril, is sometimes effectual when Alum fails.

117. *In Poisoning by Opium, Datura, Nux Vomica, Cocculus Indicus, Bish (Aconite), Arsenic, &c.*, where the poison has been swallowed, an emetic should at once be given to evacuate the contents of the stomach. For this purpose, Sulphate of Copper may be advantageously employed—5 grains in a pint of tepid water, taken at a draught. If this does not operate in half an hour it may be repeated, and a third dose, even, may be given if necessary, but this quantity should not be exceeded; as, unless it is vomited up, it remains in the stomach, and in large doses is itself capable of acting as a poison. Its operation should be promoted by copious draughts of warm water. Its use, as an emetic, should be limited to cases of poisoning, when it is of the greatest importance to empty the stomach as rapidly as possible. In other cases, it is not a safe or manageable emetic. White of egg is the best remedy, if it causes any unpleasant effects.

118. **Croton Seeds.** The seeds of *Croton Tiglium*, *Linn.*

Jépál, Jamál-gótá (*Hind.*), Jamál-guttah (*Duk.*), Jépál, Jamál-gotá (*Beng.*), Néválam-kottai (*Tam.*), Népála-vittulu (*Tel.*), Nirvám (*Mal-yal.*), Jápálada-bíjá (*Can.*), Népálácha-bí (*Mah.*) Jamál-gota (*Guz.*), Jápála, Jaipála (*Cing.*) Kanakho-si, Sa-díva, Ta-díva (*Burm.*)

119. The Croton seeds, met with in Indian bazaars, are often spoilt by long keeping, &c.; they should, when practicable, be collected fresh when required for use. They are about the size of a grain of coffee, oval, rounded, of an imperfectly quadrangular form, with a thin brittle light-coloured shell, containing a yellowish albuminous kernel, enclosing a large leafy embryo; inodorous; taste at first mild, subsequently acrid and pungent. In their natural state they are violently purgative, and even in small quantity poisonous.

120. A very useful purgative pill may be made with these seeds, in the following manner: Take any quantity of the seeds, deprived of their outer shell, boil them three times in milk, and after boiling, carefully remove the outer skin and the little leaf-like body (embryo), which will be found between the two halves of the kernel; if the latter be allowed to remain, it will cause violent griping and vomiting. To 60 grains of the seeds thus prepared, add 120 grains of finely-powdered Catechu, and with the aid of a little honey or gum beat them into an even mass. Take care that the ingredients are thoroughly mixed, and then divide into pills, each weighing two grains. One of these is a sufficient dose for an adult, and they should be given when a strong purgative is required, as in *Apoplexy*, *Convulsions*, *Insanity*, *Ardent Fevers*, &c. Should they cause much griping, vomiting, or too violent purging, a good large draught of lime juice is the best remedy; and it may be safely repeated in half-an-hour if the vomiting, &c., continuo.

121. The oil expressed from these seeds, *Croton Oil*, is a powerful purgative, in doses of one drop, or even less, made into a pill, with bread-crumbs. It is applicable for all the cases mentioned in the last section; and where one drop does not operate, the dose may be increased to two or even three drops. In *Apoplexy, Fits, &c.*, where the patient is unable to swallow, it is sufficient to place the oil at the base of the tongue. Its use, as a general rule, should be confined to adults.

122. A useful stimulant liniment is made by mixing $\frac{1}{2}$ ounce of Croton Oil with $3\frac{1}{2}$ ounces of Sesamum, Cocoa-nut, or other bland oil. It causes a vesicular eruption, and proves serviceable in *Chronic Rheumatism, Paralysis, Diseases of the Joints, Phthisis* and *Chronic Bronchitis*.

123. *Cubebs*. The dried unripened fruit of *Cubeba officinalis*, *Miquel*.

Kabáb-chíní (*Hind., Duk.*), Vál-milagu (*Tam.*), Tóka-miriyálu, Chalava-miriyálu (*Tel.*), Válmulaka (*Malyal.*), Bála-menasu (*Can.*), Kabábachini, Himsí-míre (*Mah.*), Kabáb-chíní, Tadamirí (*Guz.*), Vál-molagu, Vát-molavú (*Cing.*).

124. *Cubebs* of very fair quality is often obtainable in the bazaars. It is usually about the size of black pepper, globular, wrinkled, blackish, supported on a short stalk, has an acrid camphoraceous taste, and a peculiar aromatic odour. Within the shell is a hard, spherical, whitish, oily kernel.

125. The chief use of *Cubebs* is as a remedy in

Gonorrhœa, but it is only admissable in the more advanced stages, when the acute symptoms have subsided; in the earlier stages it may do harm. The following is a good form: Take of powdered Cubebs, 2 ounces; powdered Alum, $\frac{1}{2}$ ounce. Mix thoroughly, and divide into nine equal parts, one to be taken thrice daily in water. These powders may also be used with benefit in *Gleet*, *Leucorrhœa* and other *Vaginal Discharges in Women*.

126. *The Coughs of Old Age*, attended with much expectoration, are sometimes greatly benefited by Cubebs, in doses of 8 or 10 grains thrice daily.

127. *Datura*. The dried leaves and stems of *Datura alba*, *Linn.*, and *Datura fastuosa*, *Linn.*

Dhatúrá (*Hind.*, *Duk.*, *Beng.*, *Guz.*), Umattai (*Tam.*), Ummetta, Duttúramu (*Tel.*), Ummatta (*Malyal.*), Ummatte (*Can.*), Attana (*Cing.*), Padáyin (*Burm.*). These are the native generic names of the *Datura* plant, the different species being distinguished by affixes denoting the colour of the flowers, white, purple, &c.

128. The white and purple varieties of *Datura* are common on waste places throughout India; they possess the same medicinal properties, and although the purple variety is generally regarded as the more powerful, there is no evidence of its being so. Although a valuable medicine, much caution is necessary in its employment; as in over-doses it acts as a powerful narcotic poison. A very useful preparation is a Tincture made by macerating

2½ ounces of bruised Datura seeds in one pint of Proof Spirit (356) for seven days in a closed vessel, occasionally shaking; it should then be pressed and filtered, and measured, and sufficient Proof Spirit added to make one pint. This Tincture generally produces all the sedative and narcotic effects which could be expected from opium, besides effecting a great saving; opium being very expensive, whilst this tincture can be prepared at a comparatively small cost. The dose requires to be regulated in each individual case; it is better, therefore, to commence with small doses of 10 or 12 drops in a little water, and increase them to 20 or 30 drops, according to circumstances. As a general rule, 20 drops will be found to be equal in effect to one grain of Opium. One of the effects of Datura is to produce dilatation of the pupil; the eye should therefore be occasionally examined whilst this remedy is being administered, and should the pupil be found very large and dilated, it may be regarded as a sign that the medicine has been carried as far as it can be with safety, whether it has produced its other intended effects or not.

129. *In Asthma*, the dried leaves and stems cut small and smoked, like tobacco, in a pipe, afford, in many cases, great relief. In some, the benefit is immediate and striking, in others it has little effect, and in a few it acts injuriously; its value in any case can only be ascertained by personal experiment, but it is worth a trial in all cases. When the leaves fail, the dried seeds, which are thought to be more powerful, may be tried. The earlier in the attack it

is employed the greater are the chances of success ; it has little effect when the attack has lasted for some hours. For a person subject to asthma, a good plan is to adopt the habit of smoking a pipe of it the last thing at night, whether an attack is threatening or not ; at any rate, he should keep a pipe of it already filled, with the means of lighting it, by his bedside, so that, immediately on an attack commencing, he may use it. From 10 to 20 grains of the dried plant is sufficient to commence with ; it may subsequently be increased to 30 grains, but in all cases it should be immediately discontinued if it produces giddiness, a feeling of sickness, or any other unpleasant symptom. Serious, and even fatal, consequences have followed its incautious use, hence too much care cannot be exercised in its employment. In *Chronic Coughs*, where the cough comes on in violent paroxysms, and is hard and dry, with scanty expectoration, smoking Datura (*ante*) proves beneficial.

130. For *Rheumatic Swellings of the Joints, Lumbago, Painful Tumours, Nodes, &c.*, Datura, locally applied, often proves most serviceable in relieving pain. There are four modes, in either of which it may be advantageously employed: 1. *Poultice*, made by bruising the fresh leaves into a pulp, and mixing them, with the aid of a little water, with an equal weight of rice flour, to the consistence of a poultice. 2. *Epithem* ; which consists of steeping a few entire leaves in arrack or other spirit, and placing them, whilst wet, over the seat of pain, and securing them in that position by a bandage. 3. *Fomentation* ;

made by infusing the leaves in boiling water, in the proportion of one ounce to each pint of fluid, and applying as directed in paragraph 393. 4. *Liniment*; prepared by macerating, for seven days, one ounce of the bruised seeds in a pint of Sesamum or other bland oil, and straining. In addition to the above-named affections, these preparations, applied to the loins, are useful in relieving *the pain attendant on painful or difficult Menstruation*, and in some *painful affections of the Uterus*; in the latter, they may more advantageously be placed over the lower part of the abdomen. They also prove beneficial in relieving *Neuralgic Pains, especially of the Face*; for these, the Liniment is best adapted, well rubbed in over the seat of pain, and along the space immediately in front of the ear, or, rather, in the narrow space between the ear and the jaw.

131. *In Tetanus or Lock-jaw, consequent on a wound*, Datura is worthy of a trial in the absence of more effective agents.* Poultices of the leaves, renewed three or four times a day, should be kept constantly to the wound, which should be further cleansed, if covered with thick discharge or slough, by the process of irrigation of tepid water (395). The Tincture of Datura, in doses of 20 to 30 drops in water,

* The treatment detailed in this paragraph is advocated from the success which has in some cases of Tetanus attended the use of Belladonna—a drug to which Datura bears a very close resemblance in its effects on the system; employed as above directed, it may be used with perfect safety, provided that the case is carefully watched, and the medicine diminished or discontinued on the full development of its physiological effects.

may also be given internally three or four times a day. The dose must be regulated by the effect produced, but it may be continued, unless the spasms previously yield, till it produces full dilatation of the pupil with some degree of giddiness, drowsiness, or confusion of ideas, beyond which it is not safe to carry the medicine. If the spasms abate, *i.e.*, if they recur at more distant intervals, and are less severe and prolonged when they do occur, the medicine, in smaller doses at longer intervals, may be continued till the spasms cease altogether; but if, under the use of the remedy, after it has produced its specific effects on the system, the spasms show no sign of abatement, no good, but perhaps harm, will result from continuing it. In addition to the above means, Datura liniment (130) should be well rubbed in along the spine several times daily. The patient should be confined to a darkened room and protected from cold draughts of air; the bowels should be opened, if necessary by Turpentine enemas (364). The strength should be supported by strong beef-tea, or mutton-broth (400), by eggs beaten up with milk, and by brandy-mixture (405), or other stimulants; if these cannot be swallowed they should be given in enemas, for which purpose not more than four ounces should be used at a time; larger quantities will not be retained.

132. *In cases of Guinea Worm*, a Datura poultice (130) is said to be the most useful in relieving the pain, and hastening the expulsion of the worm.

133. **Dill Seeds.** The fruit of *Anethum Sowa*, *Roxb.*

Sóyah, Suvà (*Hind.*), Sóyí (*Duk.*), Shulphà, Shonva, Shóvá (*Beng.*), Shata-kuppi-virai (*Tam.*), Shata-kuppi-víttulu (*Tel.*), Shata-kuftá (*Malyal.*), Sabbasagi (*Can.*), Suvá-nu-bi (*Guz.*), Sada-kuppa, Sata-kuppi (*Cing.*), Samin (*Burm.*).

134. The Indian Dill Seeds possess no specific characters to distinguish them from the European article, for which it may be substituted. The distilled water, when procurable, is the best form, but in its absence an infusion of the bruised seeds, 3 drachms to half a pint of hot water, may be used; of this, when strained and cold, the dose for an infant is a dessert-spoonful or more, sweetened with a little sugar. It proves very effectual in relieving *Abdominal Pain, Flatulence, and Colic in Children*. Its efficacy is often much increased by the addition of a tea-spoonful of lime-water.

135. Fish-liver Oil.

Mach-chí-ká-tél (*Hind., Duk.*), Machár-tail (*Beng.*), Mín-yenney (*Tam.*), Chépa-núne (*Tel.*), Mín-nai, Malsyam-nai (*Malyal.*), Míniná-yanne (*Can.*), Mosolícha-téla (*Mah.*), Mín-tel, Mal-tel (*Cing.*)

136. Oil from the livers of the White Shark (*Squalus Carcharias*, *Linn.*), the Seir (*Cybium Comersonii*, *Cuw. et Val.*), and other fish, is now extensively prepared in various sea-coast towns of India.

When properly made it is of a fine amber colour ; the smell and taste are similar to Cod-liver Oil, but more strongly marked and more disagreeable. The great objection to its use is its nauseous taste, but this might probably, in a great measure, be obviated by extracting it by the process of boiling the *fresh* livers in water, instead of allowing them to undergo a degree of putrefaction before the process of extraction is commenced, as is the usual practice. As a medicinal agent it appears to be quite equal to cod-liver oil, for which it forms an excellent substitute ; but where the stomach is very irritable, and the aversion to it unconquerable, it may be advisable to have recourse to the European imported article.

137. *Remarks on its Use.* a. The best time for administering the oil is immediately after, or to those who prefer it, during, a solid meal. Taken on an empty stomach it is almost sure to nauseate. Patients who can take it at no other time will sometimes retain a dose if given the last thing before going to bed.

b. For disguising the nauseous taste and preventing subsequent eructations, a good plan is to take a few grains of common salt, both immediately before and after a dose. As a vehicle, a little orange wine, or solution of quinine, or lime-juice, or hot strong coffee without milk, has been advocated by various writers. A little Omum water (317) is perhaps the best vehicle of all.

c. The bulk of the whole dose of the oil and vehicle together should be so small that it may be swallowed at a single draught ; therefore the vehicle

should not exceed a table-spoonful with, at first, a tea-spoonful of the oil, to be gradually increased to a table-spoonful. In taking this (as well as all other nauseous drugs) it is advisable to prevent as far as possible the tongue from coming in contact with it; to effect this the tongue should be projected on the surface of the glass or spoon, and the fluid thrown down as far back in the throat as can conveniently be done.

d. The dose, as a general rule, at the commencement is a tea-spoonful three times a day, gradually increased as the stomach is able to bear it. It is rarely requisite to exceed a table-spoonful twice or thrice daily; larger quantities either derange the stomach or liver, or pass off unabsorbed by the bowels.

e. The diet during a course of the oil should be plain and nutritious, consisting of bread, fresh meat roast or boiled, poultry, game, &c., with a fair proportion of vegetables, and fruit, and a moderate quantity of liquids. All rich articles of food, as pastry, fat meat, cream, &c., should be avoided. Wine is preferable to beer, the latter often disagreeing. Should a bilious attack come on, the oil should be discontinued, the diet lightened, and an occasional aperient administered. In a few days, when the attack has passed off, the oil may be resumed, beginning with the small doses as at first. In all cases during the use of the oil, the bowels should be kept regular, if necessary, by mild aperients.

f. During its use the patient should be as much as possible in the open air, and take gentle exercise.

138. It is in *Pulmonary Consumption* that the value of fish oil is most manifest, but there are a large number of cases of a scrofulous character in which it proves almost equally valuable. In *Scrofulous Abscesses, Suppurating Glands, Ulcerations, Discharges, whether from the nose or ears, and Skin Diseases*, especially when the patient is weak and emaciated, the oil is indicated and proves most beneficial. It proves equally useful in *Scrofulous Affections of the Joints and Bones*, especially in *Rickets*; and in *Scrofulous Ophthalmia*.

139. In the *Mesenteric Affections of Children* the best results often follow its use; the little patient rapidly gains strength and flesh, the tumified belly becomes reduced, the stools lose their clayey colour and become bilious and healthy. It should not only be given internally, but should be used as a liniment to the abdomen. *The Obstinate Constipation of Children* sometimes yields to the use of the oil, and its return is prevented while the remedy is continued. It is also well worthy of a trial in cases of *Chronic Hydrocephalus, or Water on the Brain* occurring in children of a scrofulous habit.

140. In the advanced stages of *Hooping Cough, and in other Spasmodic Coughs, which often remain after an attack of Bronchitis*, especially when occurring in weakly children, marked benefit follows its use.

141. *Chorea (St. Vitus's Dance) and Epilepsy* sometimes are benefited by it when more active remedies have failed. The same remark applies to some forms of *Neuralgia*, especially *Tic Douloureux*; but the cases in which it will prove serviceable can only be ascertained by trials with the remedy.

142. *In Chronic Rheumatism*, attended with much debility and emaciation, it often proves useful; in fact, in all cases of *Atrophy* (*wasting or emaciation*), *whether connected with Rheumatism, Scrofula, or defective digestion, or resulting from long-continued confinement in close rooms, as in jails, &c.*, a course of the oil offers the best prospect of success. In some forms of *Paralysis* it is occasionally very beneficial. *In Leprosy*, it is a remedy well worthy of careful trial; not so much as a curative agent as a means of relieving many of the distressing symptoms.

143. In all the above cases the remedy should be persevered in for weeks, or even longer; and the rules given above for its administration must be carefully attended to. Its operation is most beneficial in the cold season.

144. Galls.

Mái-phal, Mázú-phal (*Hind.*), Mái-phal, Májú-phal (*Duk.*), Máju-phal (*Beng.*), Máshik-káy (*Tam.*), Máshi-káya (*Tel.*), Máshik-káya (*Malyal.*), Máchi-káyi (*Can.*), Mái-phala, Máshi-ká (*Mah.*), Máyi-phal (*Guz.*), Mása-ka (*Cing.*), Pinza-káni-si, Pinz-gáni-di (*Burm.*).

145. Many varieties of Galls are met with in the bazaars; the best for medical use are globular, about the size of a nutmeg, of a yellowish-white colour and very astringent taste, with a small hole on one side of the surface. In the absence of this kind, the other varieties of Galls may be employed, as they all partake, more or less, of the same as-

tringent qualities. The dose for an adult is from 10 to 20 grains in powder or infusion; but a better form is decoction, prepared by boiling for ten minutes in an earthenware vessel $1\frac{1}{2}$ ounces of bruised Galls in a pint of water; of this, when cold and strained, the dose is from 1 to 2 ounces thrice daily, or oftener. This decoction forms also a useful astringent wash, gargle, &c.

146. *In Chronic Diarrhœa, especially in Natives,* powdered Galls in 15 grain doses thrice daily, often proves useful, and in obstinate cases its efficacy is increased by the addition of half a grain of Opium with each dose. A little powdered Cinnamon may be advantageously added, and the whole given in honey. *In the advanced stages of Dysentery,* the decoction (*ante*) seems to answer better, and it may be given in doses of $1\frac{1}{2}$ to 2 ounces thrice daily, with the addition of opium, as above, and a carminative. This treatment is only adapted for adults.

147. *In Prolapsus (Descent) of the Rectum,* the daily use of an enema of decoction of Galls proves useful by constringing the parts, and this may further be effected, especially in the case of children, by keeping a pad saturated with the decoction over the external parts after the protruded bowel has been returned. The same treatment is applicable (the decoction being used as a vaginal injection) in cases of *Prolapsus of the Uterus (Descent of the Womb.)*

148. *In Piles, unattended by increased heat or inflammation,* a very useful application is an ointment

composed of $1\frac{1}{2}$ drachms of powdered Galls, and 1 ounce of ghee. The ingredients should be thoroughly mixed. If there should be much pain $\frac{1}{2}$ drachm of Opium may be added to it. It should be applied twice daily. Enemas of the decoction (*ante*) may also be used with advantage.

149. *In Gleet and long standing Gonorrhœa*, 20 grains of powdered Galls twice or thrice daily, has sometimes a good effect in checking the discharge. *In Leucorrhœa, and other Vaginal Discharges* the same treatment is applicable, and at the same time injections of the decoction may be employed.

150. *In Relaxed Sore Throat and Enlargement of the Tonsils* a very useful gargle is composed of 40 grains of Alum, 6 ounces of decoction of Galls (145), and 1 ounce of Honey.

151. *In the Intermittent Fevers of Natives*, powdered Galls, in doses of 20 to 30 grains three or four times a day, have been found serviceable in some cases. Or smaller doses (10 to 12 grains) may be given in $1\frac{1}{2}$ ounce of infusion of Chiretta (98) repeated every hour, for four or five times in succession, immediately before the period at which the fever usually returns. An aperient should, in all cases, be taken before commencing this treatment, which is only suited for adults.

152. *In Poisoning by Nux Vomica, Cocculus Indicus, Datura, Opium, and Bish (Aconite Root)*, after the stomach has been freely emptied by emetics (which is the first thing to be done), the decoction of Galls, in doses of 3 or 4 ounces, should be given every ten minutes or quarter of an hour, for four or five times

in succession. It is thought to act as an antidote; in some cases it certainly seems to act very beneficially.

153. **Ginger.** The dried root of *Zingiber officinalis*, *Roscoe*.

Sónth, Sindhi (*Hind.*), Sónt (*Duk., Beng.*), Shukku (*Tam.*), Sonti (*Tel.*), Chukka (*Malyal.*), Vana-sunthi (*Can.*), Súnt (*Guz.*), Ingúró, Velich-ingúró (*Cing.*), Ginsi-khiáv (*Burm.*).

154. Dried Ginger is preferable to fresh or green Ginger for medicinal use, but if not procurable the latter may be employed. It is best given in the form of infusion, made by macerating 1 ounce of bruised Ginger in a pint of boiling water in a covered vessel for an hour and straining. The dose is from 1 to 2 ounces. A very useful domestic remedy is made by steeping 3 ounces of Ginger in a pint of Brandy for ten days. Of this a tea-spoonful or more may, with great advantage, be added to aperient, antacid, and other medicines.

155. *In Colic, Flatulence, Vomiting, Spasms and other painful Affections of the Bowels, unattended by fever*, the above infusion, especially if taken warm, in doses of 2 ounces every half-hour or hour, often affords great relief. The addition of 20 grains of Carbonate of Soda, if at hand, greatly increases its efficacy. For children a table-spoonful of the infusion is sufficient.

156. *In Chronic Rheumatism* infusion of Ginger (2 drachms to 6 ounces of boiling water and strained)

taken warm the last thing before going to bed, the body being covered with blankets, so as to produce copious perspiration, is often attended with the best effects. The same treatment has also been found very beneficial in *Colds or Catarrhal attacks*, and during *the cold stage of Intermittent Fever*.

157. In *Headache* a Ginger plaster, made by bruising Ginger with a little water to the consistence of a poultice, applied to the forehead, affords in many instances much relief. *Toothache and Faceache* are sometimes relieved by the same application to the face.

158. *Relaxed Sore Throat, Hoarseness, and Loss of Voice* are sometimes benefited by chewing a piece of Ginger so as to produce a copious flow of saliva.

159. **Gurjun Balsam, or Wood Oil.** The balsamic exudation of *Dipterocarpus lævis*. *Ham.*

Garjan-ká-tél (*Hind.*), Gorjon-tail (*Beng.*), Horatel (*Cing.*), Kanyen-si (*Burm.*).

160. Gurjun Balsam, or Wood Oil, is a transparent liquid of the consistence of olive oil, lighter than water, of a dark-brown sherry colour, with an odour and taste resembling *Copaiba*, but less powerful. It has been used as a substitute for this latter drug in the treatment of *Gonorrhœa*, and trials with it in the hands of Europeans have shown that it is a remedy of no mean value in this affection. It is only advisable in the advanced stages, or when the disease has degenerated into *Gleet*. In the latter affection it is stated to prove most useful. It is also

well worthy of a trial in *Leucorrhœa and other Vaginal Discharges*. The dose is about a tea-spoonful twice or thrice daily, given floating on Omum or other aromatic water, or made into an emulsion with mucilage. It is apt occasionally to produce an eruption on the skin similar to that which, in some instances, follows the use of copaiba.

161. **Hemidesmus Root, or Country Sarsaparilla.**
The root of *Hemidesmus Indicus*, *R. Brown*.

Hindí-sál-sá, Janglí-chanbéllí (*Hind.*), Nanníré-jar (*Duk.*), Ananto-múl (*Beng.*), Nannári-vér (*Tam.*), Sugandhi - pála, Pála - chukkam - déru (*Tel.*), Nannári-kizhanna, Naru-níntí (*Malyal.*), Sugandha-pálada-béru (*Can.*), Irimusu (*Cing.*).

162. The specimens of *Hemidesmus Root*, procurable in most parts of India, which are best adapted for medical use are medium sized, about the size of a quill, having a full, peculiar aromatic odour, and a feebly bitter and agreeable taste. That freshly collected is far preferable to that bought in the bazaars, which is often inodorous, tasteless, and almost worthless. The virtues of the drug reside mainly in the root-bark, hence if the larger roots are employed you get an undue proportion of the inner woody portion which is comparatively inert.

163. *Hemidesmus* proves most useful in *Constitutional Debility*, from whatever cause arising; also in *Chronic Rheumatism*, *Constitutional Syphilis*, *Skin Diseases and Ulcerations*, especially those of *Syphilitic*

origin, Indigestion and Loss of Appetite. It is best given in the form of infusion, prepared by infusing one ounce of the bruised roots in half-a-pint of boiling water in a covered vessel for an hour and straining. Of this the dose is from 2 to 3 ounces thrice daily. Its efficacy is much increased by being taken while the infusion is still warm; the addition of milk and sugar renders it so like ordinary tea that children will take it readily; and this is fortunate, as it is a peculiarly useful tonic for the pale, weakly offspring of Europeans in India; for such it may be substituted for tea at breakfast and supper. Some children prefer it to ordinary tea.

164. Honey.

Shahad, Madh (*Hind.*), Shahad (*Duk.*), Modhu (*Beng.*), Tén (*Tam.*), Téné (*Tel.*), Tén (*Malyal.*), Jénu (*Can.*), Mada (*Mah.*), Madh (*Guz.*). Páni (*Cing.*), Piyá-ye (*Burm.*).

165. Honey of fair quality is obtainable in most parts of India. Though not possessed of any marked medicinal properties it is always advisable to keep some in store, as it forms an agreeable sweetening ingredient for mixtures, is a good vehicle in which to administer powders for children, and is one of the best substances in making pills, &c. Should it be dirty and impure it should be "clarified" by melting in a water bath and straining through cloth.

166. A mixture of Honey and Distilled Vinogar or Lime juice in equal parts melted together by

gentle heat, is an excellent adjunct to cough mixtures, and in the *Coughs of Childhood* this combination, diluted with an equal quantity of water, and with or without a few drops of Paregoric, forms a useful and pleasant mixture, which children will readily take when they will not swallow other more nauseous medicines.

167. An excellent stimulant application, termed CEROMEL, for *Indolent and other Ulcerations*, is formed by melting together with the aid of gentle heat, 1 ounce of yellow Wax and 4 ounces of clarified Honey, and straining. It is admirably adapted for use in hot climates, where animal fats, the basis of so many ointments, soon become rancid and unfit for medicinal use.

168. *Hydrocotyle Asiatica*, Linn.

Vallári (*Hind., Duk.*), Thal-kúru (*Beng.*), Vallárai (*Tam.*), Mandúka-bramha-kúráku, Pinna-éakichettu, Bokkudu-chettu (*Tel.*), Kutakan, Kodogam (*Malyal.*), Von-delagá (*Can.*), Hingotukola (*Cing.*), Mink-hua-bin (*Burm.*).

169. This small, low-growing plant, common in moist localities in many parts of India, has obtained considerable repute in European practice as a remedy for *Leprosy*. It is prepared as follows: The leaves having been carefully separated, as soon as possible after the plant is gathered, should be spread on a mat in the shade, and then freely exposed to the air, but not to the sun. They lose about nine-tenths of weight by drying. When thoroughly dry they

should be finely powdered and kept in well-corked or stoppered bottles.* Of this powder the dose is from 3 to 5 grains thrice daily. At the same time some of the powder may be sprinkled on the ulcers, or, which is better, poultices made of the fresh leaves bruised into a paste may be applied. Under its use the patient, in the course of a few weeks, improves in all respects. After continuing its use for some time, this remedy causes great itching of the skin over the whole body; under these circumstances it should be discontinued for a week, aperients administered, and then the medicine recommenced. Though it may not effect a cure, it often does a great deal of good. It may also be tried in *Scrofula* and *Syphilis*.

170. *Chronic Ulcerations of Syphilitic and Scrofulous origin* often show a marked improvement under the internal and local use of this remedy, but it requires to be steadily persevered in.

171. Sulphate of Iron.

Hírá - kasis, Kashish (*Hind.*), Hírá - kashísh (*Duk.*), Hirákos, Hírá-kosis (*Beng.*), Híra-kasis (*Guz.*), Anná-bédi, Anná-bhédi (*Tam., Tel., Malyal., Can.*).

172. Sulphate of Iron, in a more or less pure state, is met with in most Indian bazaars; that only should be selected for medicinal use which occurs in the form of crystals or small crystalline masses of a

* In preparing the powder for use, avoid using any heat, as this dissipates all its virtues.

pale green colour, wholly soluble in water. The dirty yellowish powder usually associated with it in bazaar specimens, as well as the flat whitish-yellow cakes sold under the same native names as the Sulphate, should be rejected. It is a valuable tonic and astringent in doses of from $\frac{1}{4}$ grain to 2 grains. In solution it forms a useful external application.

173. *Remarks on the use of this and other Preparations of Iron.*

a. Under its use the stools become black and offensive, but they resume their natural characters when the medicine is discontinued. The tongue also, if iron has been taken in solution, becomes black.

b. In order to judge fairly of its effects it requires to be persevered in for weeks or longer.

c. No advantage is gained by giving it in large doses. The fact of the stools becoming deeply black is an indication that the dose may be diminished.

d. Purgatives increase its efficacy; a dose of castor oil, or other aperient, every week or ten days, is advisable during a course of Iron.

e. Acids and acidulous fruits should be avoided during its use.

f. Children may take it not only with safety but with advantage.

174. *In that form of Constitutional Debility termed Anæmia*, when the body is apparently bloodless, when, especially in natives, the inner surface of the eye-

lids, the tongue, and the palms of the hands become very pale or white, the Sulphate proves very valuable. It is best given in solution as follows: Take of Sulphate of Iron, 4 grains, Omum water and infusion of Chiretta, of each 6 ounces; of this the dose is a wine-glassful thrice daily for adults, and from a tea-spoonful to a table-spoonful for children, according to age. Anæmic females suffering from *Leucorrhœa* (*Whites*) and *Amenorrhœa* (*Suspension of the menstrual discharge*) may advantageously take it combined with Aloes as advised in paragraph 18.

175. In *Intermittent Fever* the Sulphate often proves of great service, especially in obstinate or long standing cases, where the patient has become weak and anæmic. It may be given as follows: Take of Sulphate of Iron, finely-powdered, 24 grains; powdered Black Pepper, 30 grains; beat them into a mass with a little honey, and divide into twelve pills. Of these two should be taken twice or thrice daily, with a wine-glassful of infusion of Chiretta (98), or Gulancha (352). Whilst taking these pills, all acids and acidulous fruits should be avoided, and the bowels kept open. They are inadmissible when the stomach is very irritable, or when diarrhœa exists.

176. Long continued or repeated attacks of *Intermittent Fever* are often accompanied by a swelling or hardness under the ribs of the left side; this constitutes the affection termed *Enlargement of the Spleen* or *Ague Cake*. In these cases the treatment advised in the last paragraph may be resorted to with benefit, with the addition of a good active purgative once or

twice a week. Local pain may be relieved by Turpentine stupes or Mustard poultices over the affected part.

177. *In Neuralgic or Rheumatic Face-ache*, recurring periodically, especially when occurring in the weak and anæmic (174), Sulphate of Iron, in 2 or 3 grain doses thrice daily, produces excellent effects; it may be given in the form of pill, with a little cinnamon powder and honey, or in solution with infusion of Chiretta (98), or Gulancha (352). *Chorea and other Nervous Affections* occurring in anæmic females are often greatly benefited by the Sulphate, conjoined with Aloes (18). *Paralysis and Rickets*, associated with anæmia, are likewise benefited by it.

178. *In Dropsy attended with anæmia* (174) and *debility*, two grains of the Sulphate of Iron in a quart of water sweetened to taste, and taken in divided doses as an ordinary drink during the day, is a useful adjunct to other treatment.

179. *In Bleeding Piles, especially when the patient is much debilitated by the discharge*, daily enemas of the Sulphate, of the strength of 3 grains to 1 ounce of water, often prove of great service. The same treatment is well adapted for *Prolapsus (Descent) of the Rectum*.

180. *Obstinate Hooping Cough*, which resists Alum (28) and other remedies, sometimes yields to Sulphate of Iron in small and continued doses.

181. *In Chronic Diarrhœa and Dysentery of Childhood* in weak anæmic children the following mixture has been used with great advantage: Sulphate of

Iron, 4 grains ; Laudanum, 6 drops ; Omum water, 10 drachms. Of this the dose is two tea-spoonfuls every six hours for a child of one year of age, and so on in proportion.

182. **Jatamansi or Indian Spikenard.** The root of *Nardostachys Jatamansi*, *D. C.*

Jatámásí, Bál-char (*Hind.*), Jhatá-mánsí (*Duk.*),
 Jatámámsí (*Beng.*), Jatámáshi (*Tam., Tel.*),
 Jetá-mánchi (*Mal.*), Jetá-mávashi (*Can., Mah.*),
 Jatamánsi, Jaramansi (*Cing.*).

183. These roots, met with in most bazaars, occur in the form of short pieces of an underground stem, about the thickness of a goose quill, covered towards its tapering extremity, or almost entirely, with coarse, dark, hair-like fibres ; odour, peculiar and fragrant ; taste, aromatic and bitterish. In selecting specimens for medical use, care should be taken that they are fresh and of good quality ; much of the drug sold in the bazaars being old, worm-eaten, and worthless.

184. Jatamansi is held in high repute by the natives as an anti-spasmodic, and trials made with it by Europeans tend to show that in this character it is a good substitute for the officinal Valerian ; hence it is worthy of trial in *Hysterical Affections*, especially in *Palpitation of the Heart*, *Chorea*, *Flatulence*, &c. It may be given in infusion (2 drachms of the bruised root to $\frac{1}{2}$ pint of boiling water, macerated for an hour and strained), in doses of a wine-glassful twice or thrice daily. A Tincture was

ordered in the Bengal Pharmacopœia (5 ounces of bruised Jatamansi, Proof Spirit 2 pints), of which the dose is from 1 to 2 drachms. In all cases it may be advantageously combined with camphor, ammonia, and other remedies of the same class.

185. **Kala-dana.** The seeds of *Pharbitis Nil*, *Choisy*.

Kálá-dánah (*Hind.*), *Kali-zirki-ká-bínj* (*Duk.*), *Kálá-dáná*, *Nil-kolomi* (*Beng.*), *Kodi-kakkatán-virai*, *Jiriki-virai* (*Tam.*), *Jiriki-vittulu*, *Kolli-vittulu* (*Tel.*).

186. *Kala-dana* seeds are black, angular, a quarter of an inch or more in length, weighing on an average about half a grain each, having the form of the segment of an orange; of a sweetish and subsequently rather acrid taste, and heavy smell.

187. The powdered seeds, in doses of from 30 to 50 grains, act as a safe and effectual purgative; forming an excellent substitute for *Jalap*, though not quite so active in its operation. When the ingredients are available, the following powder is preferable to the powdered seeds by themselves:—Powdered *Kala-dana* seeds, 5 drachms; Cream of Tartar, 9 drachms; powdered *Ginger*, 1 drachm. Rub them well together in a mortar, and pass the powder through a fine sieve. Of this, the dose, as a purgative for an adult, is from 50 to 60 grains.

188. **Kamala** or **Kaméla.** The powder from the capsules of *Mallotus Philippensis*, *Müller*.

Kaméla, *Kamúd* (*Hind.*), *Kaméla* (*Beng.*), *Kaméla-*

mávu, Kápila-podi (*Tam.*), Kápila-podi (*Tel.*), Kaméla (*Guz.*), Hampirilla-gedivella-buvá (*Cing.*)

189. Kamala, much employed by the natives as a dye, is met with in most bazaars in the form of a beautiful purplish-red powder; it should be free from sand or earthy impurities. In medicine, it has attained considerable repute as a remedy for *Tænia*, or *Tape-worm*. It has little or no effect on other forms of intestinal worms. The dose for an adult is from 2 to 3 drachms in honey, or a little aromatic water; no other medicine being necessary before or after. In the above doses it acts freely on the bowels, causing, in many instances, considerable nausea and griping, though not generally more than is caused by other remedies of the same class; the worm is generally expelled in a lifeless state in the third or fourth stool. Should the first trial not prove successful, it may be repeated after the interval of a week; but should this be a failure also, it will be useless to continue its use further; then other remedies may be tried.

190. **Kariyát** or **Creyat**. The dried stalks and root of *Andrographis paniculata*, *Nees*.

Charáyctah, Mahá-títá, Kiryat (*Hind.*), Charâyeta, Kalaf-náth (*Duk.*), Cherota, Mahá-tita (*Beng.*), Shirat-kúch-chi, Nila-vémbu (*Tam.*), Néla-vému (*Tel.*), Nila-véppa, Kiriýáttu (*Malyal.*), Nela-bevinágidá (*Can.*), Chiráyita (*Mah.*), Kiryáta, Kiryáto (*Guz.*), Binko-hamba, Hín-binko-hamba (*Cing.*).

191. The stem, which is usually sold in the bazaars with the root attached, occurs in pieces of about a foot or more in length, quadrangular, of a lightish-brown colour, and persistent bitter taste. From the similarity between their native names and sensible qualities, this article is often confounded with Chiretta (96). Kariyát is a valuable bitter tonic, and may advantageously be employed in cases of *General Debility*, in *Convalescence after Fevers*, and in the *advanced stages of Dysentery*. It is best given as follows: Take of Kariyát, bruised, $\frac{1}{2}$ ounce, Acorus, or Sweet Flag Root, and Dill Seeds bruised, of each 60 grains; Boiling Water, $\frac{1}{2}$ pint; infuse in a covered vessel for an hour, and strain. Dose, from $1\frac{1}{2}$ to 2 ounces twice or thrice daily.

192. The following preparation has been highly spoken of: Take of Kariyát, cut small, 6 ounces; Myrrh and Aloes, in coarse powder, of each 1 ounce; Brandy, 2 pints. Macerate for seven days in a closed vessel, occasionally shaking it, strain, press, filter, and add sufficient Brandy to make two pints. Of this the dose is from one to four tea-spoonfuls in a little water taken on an empty stomach. It acts as a gentle aperient, and is said to prove very useful in many forms of *Dyspepsia*, especially when attended with torpidity of the bowels.

193. In the *Bowel Complaints of Children* a decoction of the fresh leaves of the Kariyát plant has been well spoken of. It is prepared by boiling $2\frac{1}{2}$ ounces of the fresh leaves in $1\frac{1}{2}$ pints of water down to 6 ounces; of this the dose is 1 ounce every two or three hours. It may be used in conjunction with other remedies as required.

194. **Kokum Butter.** The concrete oil of the seeds of *Garcinia purpurea*, *Roxb.*,

Kokam-ká-tél (*Hind.*).

195. This oil is obtained by first exposing the seeds to the action of the sun, when sufficiently dry bruising them, and then subjecting them to boiling; the oil collects on the surface, and on cooling concretes into a solid cake. When purified it is rather brittle, of a pale yellowish colour, bland and mild to the taste, melting in the mouth, and leaving an impression of cold on the tongue. It melts at 98 F. From its bland, unirritating properties, as well as from its consistence, it seems admirably adapted for replacing animal fats in the preparation of ointments, &c. Were it largely produced, which it unfortunately is not, it might be extensively utilised in tropical pharmacy.

196. **Lawsonia alba**, *Linn.*, or **Henna Shrub.**

Mhíndí (*Hind.*), Mhéndí or Méndhí (*Duk.*), Méhedí (*Beng.*), Marutónri, Aivanam (*Tam.*), Górantá (*Tel.*), Mayilánchi, Marutónni (*Malyal.*), Góranthe (*Can.*), Méndhi (*Mah.*), Méndi (*Guz.*), Maritondi (*Cing.*), Dán-bin (*Burm.*).

197. The leaves of this common Indian shrub, in almost universal use throughout the East for staining the nails, &c., are well worthy of a trial in the treatment of that troublesome and painful affection of the natives called *Burning of the Feet*. For this pur-

pose the fresh leaves should be beaten into a paste with vinegar or lime juice, and applied as a poultice to the soles of the feet. Another plan, which is sometimes more effectual, is to use strong friction with the bruised leaves over the parts. Like all other remedies, however, they not unfrequently fail to afford more than temporary relief; still, from occasionally succeeding they merit a fair trial.

198. Leeches.

Jók (*Hind.*), Jónk (*Duk., Beng.*), Attái (*Tam.*), Attalu, Jela-galu (*Tel.*), Atta (*Maljal.*), Jígani (*Can.*), Jala (*Guz.*), Kudallu, Púndal (*Cing.*), Míyon, Minyon (*Burm.*).

199. Leeches are procurable, especially during the monsoon, in most parts of India, in the neighbourhood of tanks and swamps. As they are a valuable resource in many diseases, when properly applied in proper cases, a few preliminary remarks may be acceptable.

200. Leeches vary considerably in size; and their blood-extracting capacity is, as a general rule, in proportion to their size. It has been found that small leeches will abstract two and a half times, small middle-sized four times, large middle-sized five and a half times, and large ones nearly six times their own weight of blood. Hence, to abstract a certain quantity of blood, a very much larger number of small leeches is required than of large ones. The middle-sized leech, about two inches in length when at rest, is in all cases preferable. The

very small leeches so commonly supplied in India are objectionable on account of the number of bites, the length of time required in their application, and the indefinite small oozing of blood which follows their application, and the difficulty in arresting the flow by pressure. On the other hand, the very large leech is objectionable from the large gaping wound left by its bite, which often results in an ugly scar; this applies with peculiar force to childhood and infancy.

201. Where only one or two leeches have to be applied, they may be taken in the hand and held to the spot where it is desired they should bite, but this is a long and tedious process; when several are to be applied, they should be put in a wine glass and thus held to the surface till they have all taken.

202. In order to make leeches bite readily, thoroughly cleanse the skin with soap and water, and then dry it; this is particularly necessary if a liniment has been previously employed. If they will not bite, one or more of the following plans may be tried:—1. Remove them from the water and keep them for ten minutes in a dry, warm cloth. 2. Smear the skin with cream or sugared milk. 3. Make a small puncture or scratch on the skin and smear the blood over the surface; this often succeeds when everything else fails. It should also be remembered that the fumes of sulphur, vinegar, or tobacco in a room will often prevent leeches from biting at all.

203. To make leeches bite on particular spots, take a piece of blotting paper and make in it as

many small holes as there are leeches, the holes corresponding with the spots on which it is desired to apply the leeches; they are then to be covered over with a wine glass or tumbler; the leeches, finding themselves on a rough surface, creep about till they come to the holes in the paper, when they instantly bite the exposed points of the skin: the blotting paper is easily removed by being moistened.

204. When leeches will not drop off naturally, which they generally do in about fifteen minutes or less, or if you wish to remove them, sprinkle them with a little salt or vinegar.

205. To promote the bleeding from leech bites, use hot fomentations; to arrest it, apply burnt rag, and make firm pressure with the finger over the bite. A piece of tobacco leaf, or spider's web, or the nap off a hat sometimes succeeds better than burnt rag. If these fail, try powdered Alum (25), or Sulphate of Copper (116).

206. If the leeches get into the rectum or nostrils, or any of the other passages, they may be dislodged by using an injection of, or by simply touching them with vinegar or a solution of salt.

207. Leeches should not be applied immediately over a large prominent vein, nor to the eyelids, nor to the bosom of a woman, especially during pregnancy, nor to the loose skin of the penis or scrotum, as the bites in these situations are apt to be followed by infiltration or inflammation.

208. Additional care is necessary in applying leeches to young children, as they bleed so much more freely than adults; they should, when prae-

licable, be placed where the bone is near the surface, so that in case of excessive bleeding, pressure may be made against it. Morning is the best time for their application; if put on in the evening, the bites may burst out bleeding whilst the attendants are asleep, and the child die from hæmorrhage; such cases are on record. As a general rule, one leech is sufficient for each year of a child's age up to six; after that age up to adolescence, that number continues to be enough in ordinary cases.

209. *In Fevers attended with much Headache*, leeches are very useful, but they should only be applied in the early stages of the disease; when the patient is young and vigorous, four or six leeches to each temple may be applied, but they sometimes give most relief if put at the nape of the neck, close to the point where the head joins to the spine. *In severe pain in the Chest or Abdomen occurring during Fevers*, eight or ten leeches applied immediately over the seat of pain, often afford manifest relief.

210. *In severe Head-ache, or fulness of Head, depending upon the stoppage of a discharge of blood from Piles*, leeches close to the anus frequently afford great relief, but great care is necessary that they should not creep up into the bowels. When the *Headache depends upon the sudden stoppage of the Menstrual Discharge*, the leeches should be applied to the inner part of the thighs.

211. *In acute Dysentery*, a few leeches (six to nine) to the verge of the anus are often most serviceable in relieving the pain and straining at stool, and otherwise prove beneficial. The same measure is

also of great service in *Congestion of the Liver*, or they may be placed over the region of the liver, but a fewer number afford a greater amount of relief when applied to the verge of the anus.

212. *In all local Inflammations of the Skin, Incipient Abscesses, Boils, and in Bruises, Sprains, and Blows*, where there is much pain and heat of the part, six or eight leeches, followed by hot fomentations, tend to relieve the pain and cause the subsidence of inflammatory action.

213. *In Hooping Cough*, in the early stage, it has been found a successful practice in some instances to apply leeches at the nape of the neck, just at the point of junction between the head and spine. The rule to be observed is one leech for each year of the child's age from one to six; after that age, six continue to be enough. These being removed, a mustard poultice (247) or small blister should be applied between the shoulders, not over the leech bites. The leeches and mustard poultice may be repeated if necessary. This treatment is only adapted for strong healthy children when the early symptoms are of unusual severity.

214. *Lemon-grass Oil*. The oil obtained by distillation from *Andropogon citratus*, *D.C.*

Akyá-ghas - ká-air (Hind.), Hazár - masáleh - ká aatar (*Duk.*), Agya-ghans-tail (*Beng.*), Váshanap - pullu - yenney, Karpúra - pullu - yenney (*Tam.*), Nimma-gaddi-núnay, Chippa-gadda-núnay (*Tel.*), Vásanap-pulla-enna, Sambhara-pulla-enna (*Malyal.*), Purvali - hullú - yanne,

Vásane - hullù - yanne (*Can.*), Lilli - chaya - tél (*Guz.*), Pengrimá-tel (*Cing.*), Sabalen-si (*Burm.*)

215. Specimens of Lemon-grass Oil met with in India differ somewhat in appearance, but they all partake more or less of the same medical properties, being powerful stimulants whether taken internally or applied externally. The true Lemon-grass Oil is of a pale-sherry colour, transparent, with an extremely pungent taste and a peculiar fragrant lemon-like odour.

216. *In Flatulent Colic and other Spasmodic affections of the Bowels*, a dose of from 3 to 6 drops on sugar or in emulsion often affords great and speedy relief. Thus given it proves effectual in allaying *Obstinate Vomiting*. Even in *that of Cholera* it has been found successful when other remedies have failed, and in these cases it proves additionally serviceable by acting as a stimulant to the system generally; it is well worthy of a more extended trial in the treatment of this disease. The dose (5 or 6 drops) may be repeated every hour or oftener in severe cases.

217. *In Chronic Rheumatism, Lumbago, Neuralgic Pains, Sprains, and other painful muscular affections*, an embrocation of equal parts of this oil and any bland oil, well rubbed in twice daily, has been found useful in many instances. In old chronic cases it is necessary to use the undiluted oil in order to obtain relief.

218. Lime.

Chúnah, Chúna (*Hind.*), Chunnah (*Duk.*), Chún, Chúná (*Beng.*), Shunnámbu (*Tam.*), Sunnam

(*Tel.*), Núra (*Malyal.*), Sunná (*Can.*), Chunná (*Mah.*), Chúno (*Guz.*), Hunu (*Cing.*), Thónphiya (*Burm.*)

219. Lime in a medical point of view is of great importance as the basis of LIME WATER, a mild and useful antacid; it is prepared by adding two ounces of slaked lime to one gallon of water, in a stoppered bottle, shaking well for two or three minutes, and then allowing it to stand till the lime is deposited at the bottom. In cases of emergency, as burns, &c., half-an-hour is sufficient for this purpose; otherwise it should be allowed to stand for twelve hours at least before being used. It is only the clear water which holds a portion of lime in solution, which is employed in medicine. It is advisable always to keep a supply ready prepared, as it is useful in many ways, and it will remain good for a long time if kept in well stoppered bottles so that the air cannot have access to it. The dose for adults is from 1 to 3 ounces twice or thrice daily; it is best administered in milk.

220. Another form, called the Saccharated Solution of Lime, thought to be better adapted for internal use in the diseases of childhood and infancy, is prepared by carefully mixing together in a mortar one ounce of slaked lime and two ounces of powdered white sugar, and adding this to a pint of water, as described above. It should be kept in a well stoppered bottle. The dose of the clear water is from 15 to 20 minims in milk twice or thrice daily.

221. *In Acidity of the Stomach, in Heart-burn, and*

in those forms of Indigestion arising from or connected with acidity of the stomach, lime water in doses of $1\frac{1}{2}$ to 2 ounces, is often speedily and permanently effectual. It is particularly useful in indigestion when the urine is scanty and high-coloured, and when vomiting and acid eructations are prominent symptoms. It is best given in milk.

222. *In Diarrhœa arising from Acidity* lime water frequently proves useful; it is best given in a solution of gum arabic or other mucilage, and in obstinate cases ten drops of Laudanum with each dose increases its efficacy; it may also be advantageously combined with Omum Water (317). *In Chronic Dysentery* the same treatment sometimes proves useful. Enemas of lime water diluted with an equal part of tepid milk or mucilage have also been used with benefit. It is especially adapted for the *Diarrhœa and Vomiting of Infants and young children which result from artificial feeding*; in these cases a sixth or a fourth part of lime water may be added to each pint of milk. The Saccharated Solution of Lime (220) has also been found of great service in this class of cases.

223. *Obstinate Vomiting* sometimes yields to a few doses of lime water in milk, when other more powerful remedies have failed. It is worthy of a trial in the *Vomiting attendant on the advanced stage of Fever*; it has been thought to arrest even the black vomit of yellow fever. It is also a remedy of much value in *Pyrosis or Water-brash*.

224. *To relieve the distressing irritation of the Genital Organs (Pruritus Pudendi)*, bathing the parts well with

tepid lime water three or four times a day sometimes affords much relief. *Leucorrhœa and other Vaginal Discharges* have in some instances been mitigated and even cured by the use of vaginal injections of a mixture of 1 part of Lime Water and 2 or 3 of Water.

225. *In Scrofula*, Lime water in doses of $\frac{1}{2}$ ounce in Milk three or four times a day, proves beneficial in some cases: it is thought to be especially adapted for those cases in which abscesses and ulcers are continually forming. To be of service, it requires to be persevered in for some time. *Scrofulous and other Ulcers attended by much discharge* have been found to improve under the use of Lime water as a local application. For *Syphilitic Ulcers or Chancres*, one of the best applications is a mixture of Lime water $\frac{1}{2}$ pint, and Calomel 30 grains; this—commonly known as Black Wash—should be kept constantly applied to the part by means of a piece of rag moistened with it. Many forms of *Skin Disease* attended with much secretion and with great irritation or burning are benefited by Lime water, either pure or conjoined with oil (229). *To sore or cracked Nipples* it proves very serviceable. Diluted with an equal part of water or milk it forms a useful injection in *Discharges from the Nose and Ears* occurring in scrofulous and other children.

226. *In Consumption*, Lime water and milk has been strongly recommended as an ordinary beverage. The same diet-drink has been advised in *Diabetes*; but little dependence is to be placed upon it as a cure; it may produce temporary benefit.

227. *In Thread-worm*, enemas of 3 or 4 ounces of Lime water, repeated two or three times, have sometimes been found sufficient to effect a cure.

228. *In Poisoning by any of the Mineral Acids*, Lime water given plentifully in milk is an antidote of no mean value, though inferior to some of the other alkalies. It may also be given in *Poisoning by Arsenic*.

229. *To Burns and Scalds* few applications are superior to LIME LINIMENT, composed of equal parts of Lime water and a bland oil. Olive oil is generally ordered for this purpose, but linseed oil answers just as well, and where this is not at hand, Sesamum oil (338) forms a perfect substitute. When thoroughly shaken together, so as to form a uniform mixture, it should be applied freely over the whole of the burnt surface, and the parts kept covered with rags constantly wetted with it, for some days if necessary. This liniment on cotton-wool, applied to the pustules, is said to be effectual in preventing *Pitting in Small-pox*.

230. **The Lime.** The fresh fruit of *Citrus Bergamia*, *Risso*.

Límú, Níbú, Nínbú (*Hind., Duk.*), Nébu (*Beng.*), Elumich-cham-pazham (*Tam.*), Nimma-pandu (*Tel.*), Cheru-náranná, Jonakam-náranná (*Mal-yal.*), Nimbo-hannu (*Can.*), Límbu (*Mah.*), Límbu, Nímbu (*Guz.*), Dehi (*Cing.*), Sámyá-sí, Tambiya-sí (*Burm.*).

231. The fresh juice of the Lime is a valuable re-

source to the Indian practitioner. In *Scurvy* it deservedly ranks highest in our list of remedies, and should be taken to the extent of not less than three ounces twice daily: the addition of sugar increases its efficacy. Should the patient be very debilitated, it may be advantageously combined with tonics, as infusion of Chiretta (98), or decoction of Ním Bark (260). Diluted with half its quantity of water it forms an excellent gargle for *Scorbutic and other Ulcerations of the Mouth, and Sponginess of the Gums*. When scurvy appears in a jail or other place where numbers of people are congregated together, the daily use of Lime juice should be strictly enforced amongst the healthy, as it is one of our best preservatives against an attack of the disease. For other remarks, see Art. *Scurvy*, in Index.

232. In *Small-pox, Measles, Scarlatina, and other forms of Fever*, where there is a hot dry skin, and much thirst, a very useful refrigerant drink, "Lemonade," may be made by pouring a pint of boiling water on four or five Limes cut in thin transverse slices. When cool, strain, sweeten to taste, and let the patient drink as plentifully as he likes. In the same class of cases, when the mouth is dry and clammy, sucking a fresh Lime cut in slices is often both agreeable and useful, though when at hand a slice of Pine-apple is said to answer even more effectually. The stringy portion should not be swallowed.

233. In cases of *Hæmorrhage from the Lungs, Stomach, Bowels, Uterus, Kidneys, or other internal organs*, when any degree of fever is present, the drink de-

scribed in the last section, or made somewhat stronger, may be taken with advantage in considerable quantities. The patient should at the same time remain quiet in the recumbent position, and as cool as possible.

234. *In Poisoning by Croton Oil Seeds, Castor Oil Seeds, the Physic Nut, and the fresh root of the Bitter Cassava, Mandioc, or Tapioca plant,* almost immediate relief to the purging, vomiting, and other urgent symptoms will be obtained by drinking Lime juice, 4 or 5 ounces at a time, diluted with an equal quantity of conjee or plain water. It is an antidote which should always be first tried, because it is generally at hand, and seldom fails to afford speedy relief. A full dose of castor oil should be subsequently given.

235. *For relieving the irritation and swelling caused by Mosquito bites,* fresh Lime juice often proves more effectual than anything else. Applied to the surface at nights before going to bed, it is thought also to afford protection from the attacks of mosquitoes.

236. **Moringa or Horseradish Tree.** *Moringa pterygosperma, Gartn.*

Shájnah, Ségvá (*Hind.*), Mungé-ká-jhár (*Duk.*), Sojnëá (*Beng.*), Morúnga, Murungai (*Tam.*), Munaga (*Tel.*), Murinna (*Malyal.*), Nugge-gidá (*Can.*), Munagácha-jháda (*Mah.*), Murungá (*Cing.*), Dándalon-bin (*Burm.*)

237. The fresh root of this tree closely resembles in taste, smell, and general appearance the common

horseradish of Europe, hence its ordinary name amongst Anglo-Indians. There is good reason for supposing that it possesses similar medical properties as a stimulant and diuretic, and in these characters it is worthy of trial in *Dropsical Affections attended with Debility*; it may be given as follows. Take fresh Moringa root and Mustard-seed, of each, well bruised, one ounce, Boiling Water one pint; infuse for two hours in a covered vessel and strain. Of this the dose is about one ounce and a-half (a wineglassful) thrice daily. It may also be used as a vehicle for nitre and other more active remedies.

238. *In Hoarseness and Relaxed Sore Throat*, a decoction of Moringa root (or the above infusion) has been found serviceable as a gargle.

239. In the preparation of mustard poultices when it is desired to make them act more speedily or energetically, the addition of the expressed juice of the fresh root, or of the scraped root answers these purposes effectually.

240. *Mudar*. *Calotropis procera* and *C. gigantea*,
R. Brown.

Ák, Akond, Madár (*Hind.*), Ák, Ákrá (*Duk.*), Ák, Ákondo (*Beng.*), Erukku or Erukkam (*Tam.*), Jillédu-chettu, Mandáramu (*Tel.*), Erukka (*Malyal.*), Yakkeda-gidá (*Can.*), Ákda-cha-jháda (*Mah.*), Ákda-nu-jháda (*Guz.*), Vára, Vára-gaha (*Cing.*), Mayo-bin (*Burm.*)

241. One or other of the above species of Calo-

tropis is found everywhere in India, and although much doubt exists as to which of them is the Mudar which some years since attained high repute in the treatment of leprosy, they both possess the same medical properties and may be used indiscriminately. The only part employed in medicine is the root-bark; and it is necessary carefully to attend to the subjoined directions for collecting and preparing it for medical use, a disregard of them having been, in some instances, the apparent cause of the failure of the remedy. The roots should be collected in the months of April and May, from sandy soils, and all particles of sand and dirt having been carefully removed by washing, they should be dried in the open air, without exposure to the sun, until the milky juice contained in them becomes so far dried that it ceases to flow on incisions being made. The bark is then to be carefully removed, dried, reduced to powder and preserved in well-corked bottles. In small doses, from 2 to 5 grains long continued, its action is that of an alterative tonic; in larger ones, from 30 to 60 grains, for adults, it acts freely as an emetic, and in this character it is regarded by some as one of the best Indian substitutes for Ipecacuanha.

242. *In Leprosy, Constitutional Syphilis, Obstinate Ulcerations, and in Chronic Rheumatism and Skin Diseases arising from the abuse of Mercury*, powdered Mudar (*ante*) has been found highly useful in some instances, whilst in others it has altogether failed. The commencing dose is 3 grains, gradually increased to 10 grains or more, thrice daily.

243. *In the Dysentery of Natives* it has been highly spoken of. In the severer class of cases in adults, a large dose, from 20 to 60 grains, may be given at once, in the same manner as Ipecacuanha (see Art. Dysentery in Index). In ordinary cases, smaller doses are preferable. For children the dose is 1 or 2 grains for every year of age three or four times a day. Its effects are said to be very similar to those of Ipecacuanha, like which, it may be given variously combined, as circumstances may require.

244. **Mustard.** The seeds of *Sinapis juncea*, *Linn.*, and other species of *Sinapis*.

Rái, Ráyán (*Hind., Duk.*), Rái (*Beng.*), Kadugú (*Tam.*), Áválu (*Tel.*), Katuka (*Malyal.*), Sásave (*Can.*), Moharé (*Mah.*), Ráyi (*Guz.*), Abbé (*Cing.*), Munniyén-zi (*Burm.*)

245. English Mustard imported in bottles, is procurable in most of the large bazaars, or is met with as an article of domestic economy in the household of almost every European. If not at hand, however, the common country mustard seed may be substituted, especially in the formation of poultices. For this purpose, however, they require to be thoroughly ground down into the required consistence with a little water. If previously deprived of their fixed oil by expression, their activity is increased. By long keeping they lose much of their pungency; hence fresh seeds should when practicable be employed.

246. With English Mustard at hand you can never be in want of a safe and efficient emetic. A full teaspoonful (piled up) in a tumblerful of warm water, generally produces free vomiting; if it does not, in five or ten minutes it may be repeated, and should this not produce the desired effect, a third dose may be given after a similar interval. Should this fail, then some other emetic may be tried. It is especially indicated in *Drunkennes*, *Narcotic and other Poisoning*, and in all cases where the stomach is overloaded with hard, indigestible food or intoxicating drinks, when it is desirable simply to unload the stomach without producing any depressing effect on the system. It is doubtful how far country mustard may then be used as an internal medicine.

247. MUSTARD POULTICES are usually made with the flour of mustard mixed to the consistence of a poultice with water or vinegar, spread on a piece of stout brown paper or rag, and applied to the skin. A few points require notice :—*a.* Cold water should be used in their preparation; it is a mistake to suppose that hot water or vinegar are better suited for this purpose. *b.* If it be desired to make the poultice act more speedily or strongly, this may be done by adding a small portion of bruised capsicum, or the scraped fresh root of the *Moringa* tree (239). *c.* For persons of delicate skins, as women and children, it is advisable to place a piece of thin muslin between the poultice and the skin; for the sake of cleanliness also this is desirable. *d.* As a general rule it should be removed when it produces redness of the skin, whether it cause much pain or

not. *e.* Some skins are very susceptible to its action; in these cases the poultice should be at once removed if it causes great pain. *f.* If allowed to remain in contact with the skin for twenty or thirty minutes it is apt to act as a blister, which is very undesirable, as the ulcers which result are difficult to heal.

248. In *Apoplexy, Convulsions, Delirium, and violent Headaches, occurring during Fevers or Small Pox,* mustard poultices to the feet and calves of the legs, are often very useful in relieving the affection of the head. Where the patient is able to sit up for the purpose, a mustard foot bath, an ordinary foot bath to which is added a handful of mustard, is even more effectual. The water should be as hot as can be well borne, and the higher the fluid reaches up the leg, the better. In *Delirium Tremens* it should be used every night before bed time.

249. In some *Head Affections, e.g., the early stages of Insanity, and Delirium Tremens, where there is determination of blood to the head, with sleeplessness, restlessness, and anxiety,* a plan which has been found effectual in some cases has been to envelop the whole of the legs and lower part of the abdomen in cloths steeped in a mixture of mustard and hot water, a cold wet towel being at the same time applied round the head. It has a very calming effect, and is occasionally productive of sleep. The mustard foot-bath, described in the last section, is also worthy of a trial, repeated every night before the usual bed-time.

250. In *Dropsy* mustard occasionally proves useful. It is best administered in the form of whey,

made by boiling half-an-ounce of the bruised seeds in a pint of milk, and straining. This quantity may be given daily in divided doses.

251. *In Cholera, Colic, and Spasms of the Bowels*, when unattended by inflammation, a mustard poultice placed over the abdomen in many cases affords considerable relief. It also proves useful in allaying *Vomiting*. *In Cholera*, when the patient is very low, the poultice may be placed over the heart, or the left side of the chest.

252. *In Coughs, attended with much difficulty of breathing*, mustard poultices to the chest often afford relief. They may also be advantageously applied on the back between the shoulder blades. They may be used for children as well as adults. *Hooping Cough* is occasionally much relieved by mustard poultices along the spine.

253. *Tooth-ache, Face-ache, and Neuralgic Pains of the Head and Face*, are frequently relieved by the application of a mustard poultice over the seat of pain.

254. **Myrobalans, Chebulic.** The dried fruit of *Terminalia Chebula*, *Retz.*

Har, Harrá, Pílé-har (*Hind.*), Haldá, Harlá, Pílá-halrá (*Duk.*), Hárítakí, Hórá (*Beng.*), Kadú-káy (*Tam.*), Karak-káya (*Tel.*), Katukká (*Malyal.*), Alale-káyi (*Can.*), Hiradá (*Mah.*), Harle, Pílo-harle (*Guz.*), Aralu (*Cing.*).

255. **Chebulic Myrobalans**, met with in all the bazaars of India, are of an ovoid shape, about an

inch in length, sometimes tapering towards the lower extremity, round or obscurely five or six-sided, more or less furrowed longitudinally, smooth, of a yellowish brown colour, and astringent taste.

256. Myrobalans is a safe and effective aperient, and given to natives in the following form has been found to act very satisfactorily:—Take of Myrobalans bruised 6, Cinnamon or Cloves bruised 1 drachm, Water or Milk 4 ounces; boil for ten minutes, strain, and set aside till cold. This quantity taken at a draught generally produces on an adult native three or four copious stools without griping, vomiting, or other ill effects. Youths from twelve to fourteen years require only half the above quantity, or even less. For infants and young children castor-oil or senna is preferable as an aperient. It is well adapted for ordinary cases of *Constipation* and other states where aperients are required.

257. *Chronic Ulcerations, Ulcerated Wounds, and many Skin Diseases attended with profuse discharge,* often manifestly improve under the use of an ointment composed of equal parts of dried Myrobalans and Catechu, both finely powdered, and sufficient ghee or some bland oil to make them into a thick paste: this, spread on rag, should be applied to the part, and renewed twice daily.

258. *Ním Tree or Margosa.* Azadirachta Indica, *Juss.*

Nínb, Nímb (*Hind.*), Ním (*Duk., Beng.*), Vémbu, Véppam, Véppa-marum (*Tam.*), Véppa-chettu, Ním-bamu (*Tel.*), Véppa, Aviya-véppa (*Malyal.*),

Béviná-mará (*Can.*), Límbacha-jháda (*Mah.*), Límbdanu-jháda (*Guz.*), Kohumba, Nímbagahá (*Cing.*), Tamá-bin, Kamákha (*Burm.*).

259. Ním bark varies much in appearance, according to the size and age of the tree producing it. The bark from the trunk of a tree above three or four years of age is covered with a thick scaly epidermis, and varies in thickness from a quarter to half-an-inch. That from the smaller branches is smooth, of a dullish purple colour, marked by longitudinal lines of ash-coloured epidermis from one-eighth to one-twelfth of an inch apart. The inner layer of the bark, of a whitish colour in the fresh state, is powerfully bitter, far more so than the outer dark-coloured layer, which, however, possesses a greater amount of astringency.

260. It is a valuable astringent tonic, and when dried and reduced to powder, may be given in doses of one drachm three or four times a day. A better form, however, is a decoction prepared by boiling two ounces of the bruised inner layer of the bark in a pint and a half of water for a quarter of an hour, and straining whilst hot; of this, when cold, the dose is from 2 to 3 ounces. It, as well as the powdered bark, is a remedy of considerable value in *Agues or Intermittent Fever*, and in these cases it should be given every second hour previous to the time at which the attack is expected to return. *For Convalescence after Fevers, General Debility, and Loss of Appetite* the decoction, in somewhat smaller doses than those mentioned above, proves of great service,

and its efficacy is increased and its taste improved by the addition of a few bruised cloves or a little cinnamon. As the decoction readily spoils in hot weather it should be prepared fresh for use when required.

261. *To Indolent and Ill-conditioned Ulcers, especially those of long standing*, a poultice of, Ním leaves acts beneficially as a stimulant. It is easily prepared by bruising a sufficient quantity of the fresh leaves with a little tepid water, and applying it, spread on rag, to the ulcerated surface; should it cause pain and irritation, as it sometimes does, an equal weight of rice flour may be added.

262. Nitre, Saltpetre, Nitrate of Potash.

Shóra (*Hind., Duk.*), Sórá (*Beng.*), Potluppu (*Tam.*), Peti-luppu, Shúra-káram (*Tel.*), Vetuppa (*Malyal.*), Pet-luppu (*Can.*), Shóra-mítha (*Mah.*), Sóro-khár (*Guz.*), Pot-lunu, Vedi-lunu (*Cing.*), Yán-zin (*Burm.*).

263. Nitre is obtainable in most of the bazaars of India, but often in a very impure state. To fit it for internal use it should be purified by dissolving it in boiling water, removing the scum after the liquid has been allowed to settle, straining the solution through calico and setting aside to crystalize. Pure specimens, which are sometimes met with in large bazaars, should be in white crystalline masses or fragments, colourless, and of a peculiar, cool, saline taste.

264. *In Fever*, when the skin is hot and dry, the

tongue parched, the thirst great, and the urine scanty and high coloured, an excellent refrigerant drink may be made by dissolving two drachms of nitre in a quart bottle of thin conjee, and sweetening to the taste with honey or sugar candy. This quantity may be taken daily, in divided doses as an ordinary drink. Tamarind or lime juice, may be added to improve the flavour if desired. It will be found to moderate the fever, cause some perspiration, and increase the quantity of urino. Should the patient reject the first one or two doses, it should still be persevered in, unless it should manifestly disagree. *In Small Pox, Measles, Influenza, and Catarrhal attacks*, the above drink has also been found useful. For children the strength should be reduced one half or more.

265. *For the relief of Headache and Delirium, occurring in the course of Fever*, a very cold and agreeable lotion for the head may be made by dissolving three ounces of Nitre, and an equal quantity of Sal Ammoniac, in a quart bottle full of water; this should be applied by constant relays of freshly wetted cloths.

266. *In Inflammatory sore Throat*, a popular remedy, sometimes successful in the early stages, is a small piece of Nitro allowed to dissolve slowly in the mouth.

267. *In Bleeding from the Lungs, Stomach, Uterus, or other internal organs, attended by Fever*, Nitro proves serviceable, though it is not to be relied upon as the sole means of cure. It may be given in doses of ten to fifteen grains, in three ounces of conjee or

simple water four or five times a day ; the patient at the same time being kept perfectly quiet and cool.

268. *In Asthma*, great relief in many instances, results from the inhalation of burning Nitre. For this purpose, dissolve four ounces of the salt in half a pint of boiling water in an open vessel ; immerse moderately thick blotting paper in it for a few minutes, and then dry it by exposure in the air or to the fire : when quite dry, cut it in pieces about four inches square, and keep ready for use. Immediately when an attack threatens, burn one, or, if required, two pieces of this paper, so that the fumes may be freely inhaled ; but it should not be held too near the face, or the fumes may prove too irritating, and increase rather than diminish the symptoms. The same measure proves very useful in *Spasmodic Coughs*, whether connected with *Chronic Bronchitis* or not. Persons thus afflicted, will do well to burn one or two pieces of this nitre paper in the bed room before retiring to rest at bed time, care being taken to prevent the too ready escape of the fumes.

269. *In Gonorrhœa*, a solution of a drachm of Nitre in a pint of rice congee or decoction of *Abelmoschus* (2) taken freely as a drink, serves to allay the heat on passing urine. Obstinate cases of *Leucorrhœa* sometimes yield to a combination of Nitre (10 grains) and Alum (5 grains) taken thrice daily. Given in conjunction with Infusion of *Moringa* (237), Nitre has been found to act beneficially as a diuretic in the early stages of *Dropsy*.

270. *In Acute Rheumatism*, Nitre may be given with

advantage, commencing with doses of 40 grains, twice daily: this may be gradually increased to 60, 90, up to 120 grains, the vehicle in each case being half a pint of warm rice conjee. The quantity of Nitre may be diminished as the severity of the symptoms subsides. A strong solution of Nitre (three ounces to a pint of water), forms a most soothing application to the swollen and painful joints; cloths saturated with it should be kept constantly applied; the ease which it affords is often very great.

271. **Nutmegs and Mace.** The products of *Myristica officinalis* (*Linn.*).

Nutmegs.

Jáé-phal (*Hind.*, *Duk.*, *Beng.*), Jádi-káy (*Tam.*), Jáji - kaya (*Tel.*), Játi-ká (*Malyal.*), Jaji-káyi (*Can.*), Jái-phala (*Mah.*), Jáye-phal (*Guz.*), Jádi-ká, Sádi-ká (*Cing.*), Zádi-phu (*Burm.*).

272. *Mace.*

Jáé-patí (*Hind.*, *Can.*, *Tel.*, *Guz.*), Jótri (*Beng.*), Jádi-pattíri (*Tam.*, *Malyal.*), Vasá-vási (*Cing.*), Zádi-phu-apóén (*Burm.*).

273. Nutmegs and Mace, generally procurable in bazaars, are aromatic, stimulant, and carminative, closely allied to Cloves and Cinnamon, for which they may be substituted. Nutmegs in large doses are thought to possess some narcotic properties, hence some care is necessary in their use.

274. The Native, or Country Nutmeg, the produce

of *Myristica Malabarica*, *Lam.*, is larger than the official Nutmeg, possesses little of its fragrance or its warm aromatic taste, and is very inferior as an internal remedy. Bruised and subjected to boiling it yields a considerable quantity of a yellowish concrete oil, which when melted down with a small quantity of any bland oil, is regarded as an excellent application to *Indolent and Ill-conditioned Ulcers*, allaying pain, cleansing the surface, and establishing healthy action. It deserves a trial as an embrocation in *Chronic Rheumatism*.

275. **Opium.** The inspissated juice of *Papaver somniferum*, *Linn.*

Afyún (*Hind.*), Afím (*Duk.*), Afim, Afín (*Beng.*), Abini (*Tam.*), Abhini (*Tel.*), Kasha-kashakarappá (*Malyal.*), Afimu (*Can.*), Afín (*Mah.*), Afim (*Guz.*), Abin (*Cing.*), Bhain, Bhín (*Burm.*)

276. Opium is one of the most valuable medicines we possess when properly employed, but as it is very powerful in its operation, it may be productive of great mischief if used without care and caution, or in unsuitable cases.

277. The Opium procurable in the bazaars is always more or less adulterated,* hence the quantity

* With special reference to the adulterations practised in India, the following remarks by Dr. Eatwell merit especial notice: "The nature of the adulterations practised by the cultivator is very various. The grosser impurities usually mixed with the drug to increase its weight are mud, sand, powdered charcoal, soot, cow dung, pounded poppy petals, and pounded seeds of various descriptions. All these substances are

procured in one shop is sufficient to procure a good sleep, whilst the same quantity procured at another shop will perhaps produce no sensible effect on the system. This shows the necessity of great caution in its employment.

278. The uncertainty which attends the operation of bazaar opium leads me to recommend that establishments at out-stations should be always provided with a supply of genuine Smyrna or Turkish Opium imported from Europe. It seems advisable to have

readily discoverable on breaking up the drug in cold water, removing the soluble and lighter portions of the diffused mass by decantation, and carefully examining the sediment. By this means, impurities of the above nature usually become physically apparent. Flour is a very favourite article of adulteration, but is readily detected; opium so adulterated speedily becomes sour; it breaks with a peculiar short rugged fracture, and on squeezing a mass of the drug after immersion in water, the starch may be seen oozing from its surface. The application of the iodine test, however, furnishes conclusive evidence of its presence, or at least of that of some amylaceous compound. The farina of the boiled potato is not unfrequently made use of; ghee (clarified butter) and goor (an impure treacle) are also occasionally used, as being articles at the command of most of the cultivators. Their presence is revealed by the peculiar odour and consistence which they impart to the drug. In addition to the above, a variety of vegetable juices, extracts, pulps, and colouring matters are occasionally fraudulently mixed with the opium; such are the inspissated juice of the common prickly pear (*Cactus Dillenii*), extracts prepared from tobacco, datura, and Indian hemp. The gummy exudations from various plants are frequently used; and of pulps, the most frequently employed are those of the tamarind and of the Bacl fruit (*Egle Marmelos*). To impart colour to the drug various substances are employed, as catechu, turmeric, and the pounded flowers of the Mowha tree (*Bassia latifolia*)."

it in two forms—*a.* In 1 grain pills, done up ready in an impermeable covering, like those sold by Kirby and others; by keeping it in this form it is always ready for an emergency. *b.* In the form of tincture, LAUDANUM, which is a very convenient form when small or fractional doses of opium are required, or when it is desirable to obtain a *speedy* effect. Fifteen minims contain one grain of opium. This holds good, however, only with recently prepared or carefully preserved laudanum. It should be borne in mind in all hot climates that evaporation of the spirit constituent will take place even in well-stoppered bottles, and that in proportion as this evaporation takes place, the strength of the tincture is increased, so that in long-kept laudanum ten minims or even less may contain a grain of opium. Hence, in using old laudanum it is advisable to commence with smaller doses than in that recently prepared; the dose can be subsequently altered according to the effect produced or desired.

279. Preparations of Opium should always be kept under lock and key, or they may disappear at a rate which cannot be accounted for by evaporation, or the heat of the climate! Opium in all its forms is a temptation which few natives have moral courage enough to resist.

280. The preparations of Opium mentioned above should be reserved for internal administration; for external application, where uniformity of strength is of comparatively little consequence, bazaar Opium may be employed, but even here it is desirable that good specimens of the best kinds should be used. A

few additional observations on this point may be acceptable.

281. Of the several kinds of Opium met with in India the chief are :—

1. *Patna Garden Opium* ; and 2. *Malwa Opium*.—The former, prepared exclusively for medicinal purposes, occurs in square packages of from two to four pounds weight, covered with layers of talc, and further defended by a case of brown wax about half an inch in thickness. It is solid, brittle in the cold season, of a brown colour, and fine smell ; it yields a large proportion (7 to 8, or even 10 per cent.) of Morphia. Of Malwa Opium there are many varieties ; of these the two principal are, first, that in flat circular cakes, of about a pound and a half in weight, without any exterior covering ; dull opaque, blackish brown, externally ; internally somewhat darker and soft ; odour resembling that of Smyrna Opium, but less powerful, and combined with a slight smoky smell ; taste, intensely and permanently bitter : it yields only from 3 to 5 per cent. of Morphia. The other, a superior kind of Malwa Opium, occurs in balls or cakes of smaller size, about ten ounces in weight, covered with a coarse dust composed of broken poppy petals ; colour internally, dark brown ; texture, homogeneous ; odour and taste similar to the other variety ; it yields from 7 to 8 per cent. of Morphia. The other varieties of Indian Opium, the Himalayan or “ Hill Opium,” the Kandeish, the Kutch, &c., are less applicable than the preceding for medicinal purposes, on account of their varying strength. (*Pharm. of India.*)

282. There are some points connected with the use of Opium, which should always be kept in mind :—

a. Some persons are very intolerant of the action of Opium ; in these even the smallest doses produce great nervous excitement, violent headache, and vomiting. When this peculiarity is known to exist, the drug should be avoided.

b. Infants and young children bear Opium badly ; cases are on record in which three drops of laudanum have proved fatal to infants. Still, there are diseases of childhood in which it proves valuable, but in these it should not be given except under professional advice or superintendence.

c. It should be avoided as far as possible during pregnancy. Recent experience seems to show that its frequent or habitual use exercises a prejudicial effect on the foetus.

d. The previous habits of the patient materially influence the effects of this medicine. A confirmed Opium eater, not an unfrequent character amongst the natives of India, requires a far larger dose to produce a given effect, than one not habituated to it.

e. When the use of Opium is clearly indicated, and the patient from any cause is unable to swallow, it may be given in an enema ; in this case a larger dose, a third or even a half larger, is required than when given by mouth.

f. Whenever in doubt as to the advisability of giving Opium, take the safer course, and—avoid it!

For treatment of poisoning by Opium, see Index.

283. There are many diseases as *Rheumatism*,

Tumours of different kinds, Cancer, Carbuncles (Rajah Boils), Abscesses, and Ulcers connected either with Leprosy, Syphilis or Scrofula, in which the pain, especially at night, effectually banishes sleep; here Opium is invaluable. An adult may commence with one grain pill or fifteen drops of Laudanum, taken about an hour before the usual bed-time: if this succeeds in procuring sleep it may safely be repeated nightly; if not, the dose may be doubled the second night, and trebled the third night; but it is not advisable to go beyond this quantity except under professional advice. Even these quantities after a week or two's use lose much of their power, and may require to be cautiously increased. When the pains are lessened and the patient is improving, the quantity of opium should be decreased gradually, rather than the whole supply left off at once. *To control the sleeplessness and restlessness of Delirium Tremens,* Opium given as above may be necessary, but each dose should be combined with four or five grains of camphor in the form of pill; in fact camphor alone in doses of 2 to 3 grains every three or four hours, exercises a most soothing influence, and when this treatment is adopted, the opium at bed-time may be given alone.

284. *In Spasmodic Affections of the Bowels, violent Colic, and the Passage of Gall Stones* and when the pain is violent, a full dose of Opium, *e.g.*, 20 to 25 drops of Laudanum in a wine-glass-full of Opium water, or infusion of Sweet Flag root (12), often affords speedy relief; should it not do so, however, in half an hour the dose may be repeated, and a third dose after an interval of an hour, should the pain con-

tinue unabated. At the same time, hot water fomentations, a turpentine stupe, or a mustard poultice, should be applied externally. When the pain has subsided a dose of castor oil is advisable, especially when there is reason to suspect that the attack has arisen from the use of crude or indigestible articles of food.

285. *In Cholera* the practice of giving Opium in large and repeated doses, especially in the solid form, in all stages of the disease, is fraught with danger. Administered judiciously at the proper time, and in proper cases, it is capable of doing much good, but its indiscriminate use often produces the worst effects. At the outset of an attack, few remedies are more useful when combined with Acetate of Lead. (See Index.) Again, it is a valuable adjunct to the "Calomel treatment" of Dr. Ayre, which consists in giving from one to two grains of Calomel, with from one to five drops of Laudanum, every five, ten, or fifteen minutes, according to the urgency of the symptoms, till the quantity of Laudanum has reached altogether 60 or 80 drops, when it should be discontinued. An essential part of this treatment, which has sometimes proved very effectual, is the free use of cold water as a drink.

286. *For relieving the pain and irritation of the Bladder, caused by the presence of Stone in the Bladder, Gravel, &c.*, no medicine gives more relief than Opium in full doses, as advised in paragraph 284. It proves, however, even more effectual if introduced into the rectum, either in the form of suppository (two grains of Opium with four grains of Soap), or

in enema (30 to 40 drops of Laudanum in two ounces of thin conjee water). It may also be given with great benefit *in Irritable states and Painful Affections of the Kidneys.*

287. *In Retention of Urine arising from Spasmodic Stricture of the Urethra*, a hot bath and a full dose of Opium (25 to 30 drops of Laudanum), followed by a dose of castor oil, will often suffice to give relief in recent cases of no great severity following a debauch, exposure to wet, &c. The Opium given in an enema of two or three ounces of rice conjee, sometimes succeeds when it fails if given by mouth.

288. *In Diabetes*, Opium occasionally produces the most beneficial results, especially in old cases occurring in the aged. It requires to be given in full doses and to be persevered in, the effects being carefully watched; the dose diminished, or the remedy left off altogether, if it gives rise to headache or other bad symptoms. It is worthy of remark, however, that persons suffering from this disease will take large doses with impunity.

289. *In many painful Affections of the Uterus* Opium is of the greatest service. Besides being employed in the form of suppository or enema, as mentioned in paragraph 286, Camphorated Opium Liniment (291) warmed, may likewise be rubbed into the loins, or a hot rice poultice sprinkled with Laudanum applied over the lower part of the abdomen. When given internally in these cases it requires to be given in full doses, and it may be advantageously combined with Camphor (73). For the relief of *After-Pains*, 15 or 20 drops of

Laudanum in a wine-glass-full of Camphor julep, or Onum water, or a little simple conjee, generally affords speedy relief. *In threatened Abortion from a fall, over-exertion, &c.*, a similar dose of Laudanum, with perfect rest in the recumbent position, may suffice to prevent further mischief; should there be great restlessness or pain, it may be repeated with advantage.

289. *In Dysentery*, Opium in full and repeated doses (one to two grains three or four times a day) was formerly in great repute, but it has fallen into disuse since the Ipecacuanha treatment has been re-introduced; still amongst the natives it seems, in many cases, to answer better than the latter drug. Even where Ipecacuanha is employed, a preliminary dose of Laudanum (25 to 30 drops) is often of great service in enabling the stomach to bear it and in preventing its emetic operation. *For the relief of the local pain, bearing down, and straining in this disease*, a small enema (two ounces) of conjee, with 30 to 40 drops of Laudanum in it, affords more relief than anything else. Opium is a valuable adjunct to catechu and other astringents in the treatment of *Diarrhœa*.

290. *Vomiting* is sometimes speedily relieved by a few drops of Laudanum (5 to 10 drops) in an effervescing draught, or a little Onum water. It may also be advantageously combined with infusion of Cloves or other remedies.

291. There are many external or local diseases, including *Chronic Rheumatism, Lumbago*, and other *Muscular and Neuralgic Pains, Spasms*, and *Bruises*,

Enlarged Glands, Mumps, &c., in which simple OPIUM LINIMENT, readily made by rubbing down a drachm of bazaar Opium in two ounces of Cocoa-nut, Sesamum, or other bland oil, proves very useful. Its efficacy, however, is greatly increased by conjoining it with an equal quantity of Camphor Liniment (68). This, which may be called CAMPHORATED OPIUM LINIMENT, is an excellent application in many painful external affections. It should be well shaken before being used, which it may be night and morning, or oftener if required; care should be taken not to apply it to an abraded or sore surface; it is only adapted for the sound skin, and not even then if the pain is attended with much heat and inflammation; under these circumstances, cooling lotions (325, 380) are better adapted. The Camphorated Liniment, well rubbed in along the course of the spine, is occasionally very useful in *Hooping Cough*. For *Stiff Neck*, warm Laudanum rubbed in over the part answers better.

292. In *Ophthalmia*, attended with great intolerance of light, great relief may be obtained by fumigating the eye with the vapour of boiling water, to which has been added a teaspoonful of Laudanum, or a couple of grains of Opium. An excellent eye-wash in these cases is composed of Laudanum, Vinegar, and Brandy, each one part, and Water four parts. *Tooth-ache*, depending upon a decayed tooth, is often relieved by a grain of Opium put into the hollow of the tooth; the saliva should not be swallowed. *Ear-ache* also frequently yields to a mixture of equal parts of Laudanum and any bland oil, inserted

into the outer passage of the ear on a piece of cotton-wool; care should be taken not to push it in too far.

293. *To Painful Piles*, where there is much swelling and heat, a very soothing application is a soft rice poultice, the surface of which has been sprinkled with Laudanum, or smeared over with simple Opium Liniment.

294. **Papaw Tree.** *Carica Papaya*, *Linn.*

Popaiyáh (*Hind.*), Popái (*Duk.*), Papaiyá (*Beng.*), Pappáyi (*Tam.*), Boppáyi (*Tel., Can.*), Pappáya (*Malyal.*), Pópayá (*Mah.*), Papáyi (*Guz.*), Pepolká (*Cing.*), Pimbo-si (*Burm.*).

295. The fresh milky juice of the Papaw has been successfully employed in the treatment of *Worms, especially the common Round Worm or Lumbricus*. The juice should be collected as it flows out from incisions made in the unripe fruit; a table-spoonful suffices for a dose for an adult. It should, whilst quite fresh, be mixed with an equal quantity of honey and two ounces of boiling water, and the whole well stirred. When cool, this should be taken as a draught, and two hours subsequently, one ounce of castor oil with half a table-spoonful of Lime juice. This process should be repeated two days in succession. Half the above dose is sufficient for a child between three and seven years old, and a third, or about a tea-spoonful, for a child under three years of age. Should colic follow its use, draughts of sugar and water, or sugar and milk should be freely given.

296. *Pedaliium Murex*, Linn.

Bará-ghókrú (*Hind.*, *Duk.*, *Beng.*), Ánai-nerunji, Peru-neranji (*Tam.*), E'nuga-palléru-mullu, Káítu-nerinjil (*Tel.*), Ána-nerinnil, Káttu-nerinnil (*Malyal.*), Áne-galu-gidá (*Can.*), Hattí-charátté (*Mah.*), Motto-ghókru (*Guz.*), Ati-naranchi (*Cing.*), Sule-gí (*Burm.*).

297. This small plant, with its yellow flowers and sharp-spined seed-vessel, exhaling when bruised the odour of musk, is common on dry sandy localities, especially on the sea-board of most parts of Southern India. The fresh leaves and stems briskly agitated in cold water convert it into a thick mucilage, nearly of the consistency of the white of a raw egg, inodorous and tasteless. An infusion thus prepared is a highly-prized remedy among the people of Southern India in *Gonorrhœa*. For this purpose half a pint of the above infusion is taken every morning for ten days successively: and under its use, great relief to the scalding on the passage of urine is afforded, and a cure in many cases effected. It seems well worthy of further trial. One of its effects, indeed its principal one, is greatly to increase the flow of urine; hence it might prove useful in some forms of *Dropsy*. Water rendered mucilaginous by this plant soon regains its original fluidity, hence the infusion should be freshly prepared each time it is to be administered.

298. **Pepper, Black.** The unripe fruit of *Piper nigrum*, *Linn.*

Ká-lí-mirch, Gól-mirch (*Hind.*), Ká-lí-mirchí (*Duk.*), Kálá-morich, Gól-morich (*Beng.*), Milagu, Mulagu (*Tam.*), Miriyálu (*Tel.*), Kuru-mulaka (*Malyal.*), Menasu (*Can.*), Miré (*Mah.*), Kálo-mirich, Miri (*Guz.*), Kalu-miris (*Cing.*), Náyu-kon (*Burm.*).

Black Pepper, when fresh and of good quality, is a useful stimulant and stomachic in doses of from 10 to 15 grains or more.

299. *In Cholera* the following pills were formerly held in high repute in Bengal. Take of Black Pepper, Assafœtida, and Opium each 20 grains; beat them well together, and divide into 12 pills; of these, one was the dose; repeated in an hour if required. On account of the quantity of opium they contain, it is inadvisable to continue their use too long (*See Par. 285*). They are chiefly indicated at the very outset of the attack.

300. *For Piles in aged and debilitated persons* the following confection is often of great service:—Take of Black Pepper in fine powder, 1 ounce; Caraway fruit in fine powder, 1½ ounce; Honey, 7½ ounces. Rub them well together in a mortar, and give from one to two drachms twice or thrice daily. It proves useful also, in the case of old and weak people suffering from *Descent of the Rectum*.

301. An infusion of Black Pepper (2 drachms of bruised Pepper to 1 pint of boiling water) forms a

useful stimulant gargle in *Relaxed Sore Throat*, and *Hoarseness* dependent thereon.

302. *Plantago*, or *Ispaghúl Seed*. The seeds of *Plantago Ispaghula*, *Roxb.*

Ispaghúl, *Isbaghól* (*Hind.*), *Isapghól* (*Duk.*), *Eshopgól* (*Beng.*), *Ishappukól-virai*, *Iskól-virai* (*Tam.*), *Isapagála-vittulu* (*Tel.*), *Isabakólu* (*Can.*), *Isabagóla* (*Mah.*), *Isapghól* (*Guz.*).

303. *Ispaghúl* seeds, ovate-elliptical, concave, about an eighth of an inch in length, of a greyish colour, yielding to water an abundance of tasteless mucilage, are procurable in most bazaars, and constitute a highly useful demulcent medicine.

304. *In Dysentery and Diarrhœa* they have been long held in high repute when given, as advised by the late Mr. Twining, of Calcutta. "*In the Chronic Diarrhœa of Europeans* who have been long resident in India, benefit (he remarks) often follows the use of demulcents followed by mild tonics. For this purpose the *Ispaghúl* seeds seem to answer better than any other remedy. The dose for an adult is $2\frac{1}{2}$ drachms mixed with $\frac{1}{2}$ a drachm of sugar-candy. The seeds are exhibited whole, and in their passage through the intestines they absorb as much fluid as makes them swell, and by the time they reach the central or lower portions of the canal, they give out a bland mucilage, and in general they continue to possess the same mucilaginous properties until they have passed through the intestines. If the frequency of the dejections be restrained by an anodyne

enema, and by using only a small quantity of food, the mucilaginous properties of these seeds are most evident. It is said that a slight degree of astringency and some tonic property may be imparted to the seeds by exposing them to a moderate degree of heat, so that they shall be dried and slightly browned. This remedy sometimes cures the protracted diarrhœa of European and Native children after many other remedies have failed."

305. *In many affections of the Kidneys and Bladder, in Gonorrhœa, &c.*, attended with pain, local irritation and scalding, or difficulty in passing the urine, the following decoction is likely to prove serviceable:—Take of Isphagûl seeds bruised, 2 drachms; Water a pint; boil for ten minutes in a covered vessel, and strain. Of this the dose is from 2 to 4 ounces, three or four times daily.

306. **The Plantain, or Banana Tree.** *Musa sapientum*, *Linn.*

Kélah-ká-pér (*Hind.*), Mouz-ká-jhár (*Duk.*), Kélagáchh (*Beng.*), Kadali (*Tam.*), Kadali, Araticettu (*Tel.*), Vázha-marum (*Malyal.*), Bálegida (*Can.*), Kéla-jháda (*Mah.*), Kéla-nu-jháda (*Guz.*), Kehal-gahá (*Cing.*), Napiyá-bin (*Burm.*).

307. The Plantain, or Banana tree, is extensively cultivated throughout the tropical portion of both hemispheres for the sake of its fruit, which forms a valuable article of diet. It is mentioned in this place chiefly on account of its leaves, which, when young and tender, are of a beautifully fine texture,

and may be utilised with great advantage in medical practice.

a. As a dressing for blistered surfaces, for which purpose they are admirably adapted in hot climates, where spermaceti ointment, usually employed in European practice, rapidly becomes rancid, and consequently irritant. After the removal of a blister a piece of plantain leaf of the required size, smeared with any bland oil, should be applied to the denuded surface and kept in its place by means of a bandage. The first sensation it occasions is peculiarly cooling and soothing, and the blistered surface generally heals satisfactorily in four or five days. For the first two days the upper smooth surface is placed next to the skin, and subsequently the under side, until the healing process is complete. It should be changed twice daily, or oftener if required.

b. As a substitute for India-rubber or Gutta-percha tissue in the water-dressing of Wounds and Ulcers. The younger the leaf, the better is it suited for this purpose. Two points require attention: 1, the piece used should be sufficiently large to cover or envelop the whole part; and 2, it should be carefully kept in its place by bandages, &c. If properly applied, evaporation of any subjacent fluid is effectually prevented.

c. As a shade for the eyes in Ophthalmia and other diseases of the Eye; no manufactured shade is superior to it; the older and greener leaves answer best for this purpose.

308. *Plumbago rosea*, Linn.

Lál-chíta, Lál-chítarak (*Hind.*), Lál-chitarmúl (*Duk.*), Rakto-chítá (*Beng.*), Shivappu-chittiramúlám, Kodi-múli (*Tam.*), Erra-chitra-múlám (*Tel.*), Chenti-kotuvéli (*Malyal.*), Kempuchitramúlá (*Can.*), Tábada-chitramúla (*Mah.*), Rat-nitúl (*Cing.*), Kin-khen-ní (*Burm.*).

309. The root of this plant, common in gardens throughout India, is of great value as a means of raising a blister when other articles of the same class are not available. For this purpose take the fresh bark of the root and rub it into a paste with water and a little rice flour; spread this on a piece of rag and apply it to the surface; in about five minutes it begins to give pain, which increases in severity for about half an hour, when it may be removed: a rice poultice may then be applied over the part, and within twelve or eighteen hours a large uniform blister will be found to have formed. The fluid having been let out, it may be dressed with plantain leaf in the usual way. The chief objection to the use of a *Plumbago* blister is the great pain it occasions, hence it should only be used when other blistering agents are not at hand, and a blister is an immediate necessity.

310. Pomegranate Tree. *Punica Granatum*, Linn.

Anár-ká-pér (*Hind.*), Anár-ká-jhár (*Duk.*), Dálim-gách (*Beng.*), Mádalai-chedi (*Tam.*), Dálimba,

Dádima-chettu (*Tel.*), Mátalam-chetti (*Malyal.*),
Dálimbe-gidá (*Can.*), Dálimba-jháda (*Mah.*),
Dádam-nujháda (*Guz.*), Delun-gahá (*Cing.*),
Salé-bin, or Talí-bin (*Burm.*).

311. Two parts of the Pomegranate tree, common in gardens and elsewhere throughout India, are employed medicinally, viz., the rind of the fruit and the bark of the root or root-bark.

312. In *Diarrhœa* and the advanced stages of *Dysentery*, the rind of the fruit is a valuable astringent. It is best given in decoction prepared by boiling in a covered vessel, 2 ounces of the bruised dried rind, and 2 drachms of bruised Cloves or Cinnamon in a pint of water for fifteen minutes and straining. Of this, when cold, the dose is $1\frac{1}{2}$ ounces three or four times a day; in obstinate cases, five drops of laudanum may be added to each dose. It is said to be especially useful in the *Diarrhœa of Natives*.

313. In *Relaxed Sore Throat* the above decoction, with the addition of a drachm of Alum to the pint, is a very useful gargle, and it also forms a good astringent injection in *Vaginal Discharges*; in these cases the cloves or cinnamon should be omitted.

314. For *Tape Worm* the root-bark is a remedy of established value given as follows: Take of the fresh bark sliced, 2 ounces; water, 2 pints; boil to 1 pint and strain. Of this, two ounces should be taken fasting, early in the morning, and repeated every half-hour, until four doses have been taken. This should be followed by an aperient (1 ounce of castor oil), and the worm will generally be expelled within twelve

hours. The root-bark of the male tree is supposed to possess the greatest power in these cases.

315. **Ptychotis, Ajwain or Omum Seeds.** The fruit of *Carum* (*Ptychotis*) *Ajowan*, *D.C.*

Ajváyán (*Hind.*), Ajvain, Ajván (*Beng.*), Ajván (*Duk.*), O'mam, or O'mum (*Tam.*), Ómamu, Vámamu (*Tel.*), Hómam, Ayamód-kam (*Malyal.*), Vóma (*Can.*), Vóvá, Vóva-sádá (*Mah.*), Ajwán (*Guz.*), Omam, Assamodagam (*Cing.*), Samhún (*Burm.*).

316. These small, pungent aromatic seeds rank deservedly high in the list of native remedies; they are considered to combine the stimulant quality of capsicum or mustard with the bitter property of chiretta, and the antispasmodic virtues of assafoetida. This remedy, Dr. Bidie remarks, in moderate quantities increases the flow of saliva, augments the secretion of gastric juice, and acts as a stimulant, carminative and tonic. As a topical remedy it may be used with advantage along with astringents in cases of *Relaxed Sore Throat*. For disguising the taste of disagreeable drugs and obviating their tendency to cause nausea and griping, he adds, that he knows no remedy of equal power. Testimony of a similar character is borne by Mr. J. J. Wood and others, and no room is left to doubt the value of this medicine.

317. The natives employ the crude seeds in doses of about a dessert-spoonful with the addition of a little salt; this is chewed and washed down with draughts of water. They also employ it in decoction, but this is objectionable, as heat dissipates the

essential oil, in which the virtues of the seeds resides. A far better form is the Distilled Water, OMUM WATER,* which is procurable in all the large towns in India, being a very popular remedy with the native and East Indian portion of the community. Where, however, it is not purchaseable it can be readily prepared by any native who has a common country still; in this case care should be taken that the right proportions be used—3lbs. of the bruised seeds to six quart bottles of water, and distil over four. In order to prevent the seeds touching the bottom or side of the boiler, and thus by becoming charred communicating a burnt flavour to the water, they should be tied up in a bag or cloth of loose texture, and suspended in the centre of the water. The dose is from 1 to 2 ounces, repeated as circumstances may require; that for a child ranges from a tea-spoonful to a table-spoonful, according to age. The Distilled Oil is also an excellent form of administration in doses of 1 to 3 drops on sugar, or made into an emulsion with Gum Arabic.

318. In some forms of *Dyspepsia*, in the *Vomiting*, *Griping* or *Diarrhœa* arising from errors of diet; in simple *Flatulence* and even *Tympanites*; in *Faintness* and *Exhaustion*; in *Spasmodic* affection of the *Bowels*, in *Choleraic Diarrhœa*, in certain cases of *Colic*; and in *Hysteria*, it has been found, even when given alone, pre-eminently useful (Wood). It is especially adapted for the *Diarrhœa* and *Flatulent Colic* of *Children*.

* Aarqe-ajván (*Hind. et Duk.*), Ómam-tí-nír (*Tam.*), Ómam-dráv-akam (*Tel.*). It is also sold under the name of "Sison Cordial."

319. *In Cholera* much reliance is placed by the natives and Anglo-Indians on Omum water, and although it appears to have no claim to the character of a specific in this disease which popular opinion assigns to it, there can be little doubt that it exercises considerable power, especially in the early stage, of checking the diarrhoea and vomiting, and at the same time of stimulating the system. It is not to be trusted to alone, but forms an admirable adjunct to other remedies.

320. *In Habitual Drunkenness, Dipsomania*, Omum seems worthy of trial. On this point Mr. Wood observes, "On account of its biting or pungent, yet pleasant taste, and the sensation of warmth it creates in the stomach, it has been constantly recommended of late years to those afflicted with the desire for alcoholic drinks. It does not, of course, intoxicate, but it is no mean substitute for the ordinary stimulant, in removing almost immediately the sensation of 'gnawing' or 'sinking at the pit of the stomach' which the frequent use of spirits so invariably brings on. And I have been assured that it has been the means of rescuing many otherwise sensible and useful men from slavery to the habit of spirit-drinking."

321. **Rice.** The husked seed of *Oryza sativa*.
Linn.

Chával (*Hind.*), Chánval (*Duk.*), Chál, Chánvol (*Beng.*) Arishi (*Tam.*), Biyyam (*Tel.*). Ari (*Malyal.*), Akkí (*Can.*), Tándúla (*Mah.*), Chókha (*Guz.*), Hál, (*Cing.*), Sán, Chán (*Burm.*).

322. Rice may be utilised in the following ways in the treatment of disease:—

a. In the form of Decoction or “Conjee water,” as it is commonly called, prepared by boiling one ounce of cleaned rice in a quart of water for twenty minutes, straining, and flavouring with sugar, and with lime juice if desired, to taste. This forms an excellent drink in *Fevers, Small Pox, Measles, Scarlet Fever and Inflammation of all kinds*, also in *Gonorrhœa* and other cases where there is *pain and difficulty in passing Urine*.

b. In the form of Powder—Rice Flour; this dusted thickly over the surface forms a very cooling and soothing application in *Small Pox, Measles, Erysipelas, Prickly Heat*, and other *Inflammatory affections of the Skin*. It is pleasant to the patient’s feelings, and allays heat and irritation. *To Burns and Scalds*, rice flour is an excellent application: it should be used as soon as possible after the occurrence of the injury, and it should be dusted thickly over the whole of the burnt surface, so as to absorb any discharge that may be present, and at the same time exclude the air as far as possible. If in a few days this becomes hardened and irritating, a rice poultice should be applied, so as to soften it and allow its easy removal; the surface should then be dressed with Lime Liniment (229), or Resin Ointment (372).

c. In the form of Poultice.—To prepare this, place a sufficiency of Rice flour in an open vessel over the fire, and gradually add water, constantly stirring until the mass has the required consistence. Another

and more ready mode, is to place the rice flour in a basin, and then gradually to add boiling water, constantly stirring it, as in the preceding way. A piece of cloth of the required size being ready at hand, the poultice should be smoothly spread on it, to the thickness of from a quarter to half an inch, and applied to the affected part. In most cases it is advisable before applying it, to smear the surface of the poultice with a bland oil; this renders it more soothing and keeps it longer soft and moist. A rice poultice requires changing twice or even thrice daily. It is an excellent application to *Abscesses, Boils, Buboës, Ulcers, and other local inflammatory affections, Inflamed Piles, &c.* In *Chronic Bronchitis and other Chronic Coughs* considerable relief often results from the application of a large soft rice poultice placed over the chest at bed-time, and allowed to remain on all night. Its efficacy is in many cases increased by the addition of a little mustard flour, (1 part to 3 or 4 of rice flour), so as to produce slight redness of the skin; or the surface of the poultice may be smeared over with Oil of Turpentine.

323. **Sal Ammoniac.** Hydrochlorate of Ammonia, Chloride of Ammonium.

Nousádar (*Hind.*), Nouságar (*Duk.*), Noshágar (*Beng.*), Charám, Navá-charám (*Tam.*), Navá-charám, Nava-ságaram (*Tel.*), Nava-sáram (*Malyal.*), Navá-ságára (*Can.*), Nav-sága (*Guz.*), Navá-cháram (*Cing.*), Zavasa (*Burm.*).

324. **Sal Ammoniac,** procurable in most Indian

bazaars, is generally very impure; occurring in thick translucent cakes or masses of a dirty white or brownish colour, inodorous, of a bitter acrid taste. To fit it for medical use, it should be dissolved in boiling water, strained through calico, and the clear solution exposed in an open vessel to crystallize. The crystals and white residuum should be collected and kept in bottles for use. Thus prepared, it proves valuable in many affections. Its nauseous taste, which is a great objection to its use, is completely covered by the addition of a small quantity of liquorice.

325. *Milk Abscesses* occurring after confinements and in nursing mothers may often be arrested, if at an early stage, before matter forms, the breast be kept constantly wet by means of rags saturated with a lotion composed of one drachm of Sal Ammoniac, one ounce of Arrack, and a pint of Rose water. It also proves useful in removing any hardness which may remain after the abscess has burst. It is also sometimes successful in arresting *Abscesses in other parts of the body*, when applied at an early stage before matter has formed.

326. *In Tic Douloureux and Rheumatic Face Ache*, Sal Ammoniac occasionally proves very useful. Two drachms in six ounces of water should be taken in divided doses, ($1\frac{1}{2}$ ounce for a dose), every four hours, till relief is obtained; if the pain does not yield after the four doses, no benefit can be expected from persevering with it. *Other forms of Neuralgia*, as *Sciatica* and *Lumbago*, have also been found to yield to it, when administered early in the attack.

327. *In Chronic Rheumatism*, especially when the muscles are mainly affected, Sal Ammoniac in doses of 15 to 24 grains, with infusion of Country Sarsaparilla (163), proves highly serviceable, but it is even more effectual in relieving those *Muscular Pains of the Chest* and other parts of the trunk so often met with in the over-worked and under-fed portion of the working classes in large cities. In these cases, it requires to be persevered in for some time.

328. *Hysterical, Nervous and Bilious Head Aches* are often greatly benefited, or disappear altogether, under the use of this salt in doses of 10 to 20 grains twice or thrice daily, dissolved in Camphor Julep. The earlier in the attack it is given, the greater are the chances of its proving effectual.

329. *In Chronic Coughs, especially in those of old age*, a mixture of a drachm of Sal Ammoniac, two ounces of Syrup of Country Liquorice (6), and four ounces of water, in doses of one ounce five or six times a day, occasionally proves serviceable. In doses of from 1 to 5 grains, according to the age of the child, conjoined with a few grains of powdered cinnamon, it has been found useful in *Hooping Cough*; it is inferior in efficacy to Alum, but may be commenced with safety and advantage at a much earlier period in the attack.

330. *In Hæmorrhage from the Lungs, Stomach, and other internal organs*, it is worthy of a trial if other more effectual agents are not at hand. In these cases, two drachms should be dissolved in a pint of Conjee water, and a wine-glassful given every

second or third hour, according to the severity of the case. The patient should be kept quiet, cool, and in the recumbent posture.

331. *In Jaundice*, especially when it comes on suddenly, after a great mental shock, or after exposure, a few doses of this salt, (20 grains every four hours), have often a marked effect. In more long standing cases, and in *Chronic affections of the Liver*, characterized by pain and uneasiness, or by want of action, it should be given in smaller doses, 10 to 15 grains, three or four times daily, and persevered in for some time; it is best given in Infusion of Country Sarsaparilla (163). *In Dropsy*, especially in that connected with disease of the Liver, or in that following fevers, it may be administered with advantage in the same doses, conjoined with Infusion of Moringa (237), or Decoction of Asteracantha (39).

332. *For Bruises, Strains, Rheumatic Swellings, Enlarged Glands, Indolent Buboës, Swollen Joints, Boils, &c.*, and *local Inflammations of the Skin* generally, a solution of this salt in *hot water*, (2 drachms to a pint), kept to the parts for a few hours proves useful, not only relieving the pain, but reducing the swelling. It is also thought to be more effectual than any thing else in removing the discoloration consequent on bruises and sprains. This has been noticed especially with reference to blows on the eye (*Black Eye*). It is an important ingredient in the Cold Lotion described in Sect. 265.

333. **Sandal-wood Oil.** The oil obtained by the distillation of Sandal-wood, *Santalum album*, *Linn.*

Sandal-ká-aitr (*Hind.*), Sandal *vel* Chandan-ká-atar (*Duk.*), Sandal-ká-tel (*Beng.*), Shandanam-tailum (*Tam.*).

334. Sandal-wood oil is sold commonly in the bazaars, being a favourite native perfume. It has recently been introduced as a remedy for *Gonorrhœa*, and the success which has attended its use in above a hundred cases warrants further trials with it. The dose is from 30 to 40 minims or drops thrice daily, given in a little Gum water or infusion of ginger. Trials may also be made with it in obstinate *Gleet*.

335. **Senna.** The leaves of *Cassia lanceolata*, *Forsk.*, and other species. Indian or Tinnevelly Senna.

Saná, Hindí-saná-ká-pát (*Hind.*), Nát-kí-saná (*Duk.*), Són-pát, Shón-pát (*Beng.*), Nilá-virai, Níla-vakái (*Tam.*), Néla-tangédu (*Tel.*), Níla-váká (*Malyal.*), Nelá-varike (*Can.*), Sana-kola, Nil-ávari (*Cing.*), Puve-kain-yoe (*Burm.*).

The imported Senna met with in the bazaars is usually of very inferior quality, consisting of broken pieces of old leaves, pieces of stem, and other rubbish. That grown in India, especially in Tinnevelly, is preferable to that imported from Arabia, which is called *Sana-Mukhí*, or *Mecca Senna*. The leaves should be unbroken, clean, brittle, pale green, or yellow, with a heavyish smell. It is a good safe

aperient, and may be given as follows : take of Senna leaves, one ounce ; of bruised Ginger and Cloves, each half a drachm ; Boiling Water, ten ounces. Let it stand for one hour and strain. This is a good aperient in all cases of *Constipation*, in doses of one-and-a-half to two ounces ; half this quantity, or less, is required for children, according to age. A simple infusion of Senna leaves, of the above strength, if taken hot with the addition of milk and sugar can hardly be distinguished from ordinary tea. In this manner it is easily administered to children, and will be borne by the most delicate stomachs. As a general rule, castor oil is preferable as an aperient for infants.

337. **Sesamum, Jinjili, or Til Oil.** The expressed oil of the seeds of *Sesamum Indicum*, *Linn.*

Til-ká-tél, Mithá-tél (*Hind.*), Mittá-tél (*Duk.*), Nal-enney (*Tam.*), Manchi-núne (*Tel.*), Nall-enná (*Malyal.*), Valle-yanne (*Can.*), Chokhóta-téla (*Mah.*), Mitho-tél (*Guz.*), Talla-tel (*Cing.*), Nahusí (*Burm.*).

338. This oil, met with throughout India, is quite equal, when properly prepared, to Olive oil for medicinal and pharmaceutical purposes. It is advisable always to keep a small stock of it on hand for cases of emergency, such as burns, &c., when Lime Liniment (229) may be required. As a dressing for *Ulcers, Suppurating Wounds*, "oil dressing" has been successfully applied in Bombay ; it consists of the continuous application of a pledget of common

country cloth or rag saturated with pure Sesamum oil to the affected part. It is thought to be superior to any other simple dressing, during the hot season particularly.

Sulphur.

339. Gandak, Gandhak (*Hind., Duk., Mah., Guz.*), Gandrok (*Beng.*), Gandakam, Gandhakam (*Tam., Tel., Malyal., Cing.*), Gandhaká (*Can.*), Kán (*Burm.*).

340. Several kinds of Sulphur are met with in the bazaars, but as their composition is unknown, and some of them are reputed to contain a large proportion of Arsenic, they are unsuited for internal administration; the better and purer kinds, however, may be safely employed as external applications.

341. As a remedy for *Itch*, Sulphur holds the highest place. One part of finely powdered, or Sublimed Sulphur to six of lard, Kokum butter or any bland oil, is sufficiently strong for ordinary cases. After cleansing the parts with soap and hot water, the ointment should be thoroughly well rubbed in for 15 or 20 minutes, till the pustules are all broken. Its use should be confined to the hands and wrists and other parts affected; no good is obtained from applying it extensively over the whole surface of the body, as is often done. It is best rubbed in at night, before going to bed, allowing it to remain on the whole night, and then washing it off in the morning with soap and hot water. This

process may be repeated every night till a cure is effected, which will be the case after three or four applications, provided the ointment is properly rubbed in. The patient should not resume the clothes he wore previously until they have been subjected to the process of *boiling*, a temperature of 212° F. being necessary for the destruction of the acarus on the presence of which the disease depends. Simply washing the clothes in hot water will not destroy the germ of infection.

342. Some other forms of *Chronic Skin Disease in Natives* improve under the use of sulphur ointment, described in the last section.

343. *In Chronic Rheumatism* a liniment composed of 2 ounces of powdered or sublimed Sulphur, and a pint of Nim oil well rubbed in twice daily, has been used with great benefit in many cases. Relief sometimes follows the practice of dusting the affected part with Flour of Sulphur at bedtime, enveloping it in flannel and covering the whole with plantain leaf to prevent the escape of the fumes.

344. *In Piles* few medicines afford more relief to the distressing local symptoms than a mixture of equal parts of Sublimed Sulphur and Cream of Tartar; of this a teaspoonful should be taken in milk once or twice daily, so as to keep the bowels gently open; should this quantity however operate too powerfully on the bowels the dose should be diminished. The ingredients for this powder should be procured from a regular druggist. The same treatment appears to act beneficially in *Chronic Dysentery*. It is well to bear in mind that in all cases where

Sulphur is administered internally, it communicates to the stools a peculiarly disagreeable odour of sulphuretted hydrogen.

345. Tamarinds.

The Fruit of *Tamarindus Indicus*, *Linn.*

Anblí (*Hind.*), Amlí, Amlí-ká-bót (*Duk.*), Téntúl, Tintúrí, Ámlí (*Beng.*), Puliya-pazham (*Tam., Malyal.*), Chinta-pandu (*Tel.*), Chinch (*Mah.*), Hunashí-hannu (*Can.*), Ámbli (*Guz.*), Siyambula (*Cing.*), Magi (*Burm.*).

346. The pulp of the fruit, of a reddish brown colour and acid saccharine taste, is laxative and refrigerant, and made into sherbet with water or milk (in the proportion of 1 ounce of the pulp to 1 pint of fluid) forms an agreeable and useful drink in *Febrile and Inflammatory Affections*. The only objection to it in some cases is (in others this is an advantage) that it is apt to act on the bowels as a laxative. In the absence of limes or lemons, Tamarind pulp may be given with great advantage in *Scurvy*, both as a preventive and as a curative, but it requires to be discontinued if it cause griping and diarrhoea; otherwise it is a valuable antiscorbutic, and as such may be taken on board ship, or form a portion of daily rations in jails, &c.

347. Telini Fly, *Mylabris Cichorii* (*Fabr.*).

Télní, Télní-makkhí (*Hind.*), Zírangí, Bad-bó-kí-

zirangi (*Duk.*), Pinsttarin-í (*Tam.*), Blishtering-ígelu (*Tel.*) .

348. This insect is of common occurrence throughout India ; it has the following characters :—about an inch in length and the third of an inch broad ; The elytra or wing cases of an obscure yellow, with three large somewhat zig-zag transverse black bands ; the first band is interrupted and sometimes reduced to three or four spots. There are met with in various parts of India, other allied species which differ more or less from the above description, but they all partake of the same irritant and vesicant properties, the active principle being the same with that of the officinal *Cantharides*, viz., *Cantharidinc*. It is apparently a complete substitute for the European article as a vesicant, provided that due care is taken in its preparation, &c. The best season for collecting the insects is said to be just previous to the setting in of the monsoon, in the early morning or evening ; they should be killed by the steam of boiling vinegar, thoroughly dried in the sun and preserved in well stoppered bottles.

349. Its principal use is as a blistering agent, and for this purpose it is used in the form of plaster,*

* In consequence of the difficulty of preparing this, and the uncertainty of its strength, I would advise that every establishment should be provided with a supply of officinal Blistering Liquid of the British Pharmacopœia ; this only requires to be applied for two or three minutes with a camel's-hair brush, allowed to dry on, and then covered with a warm-rice poultice ; in the course of a few hours the blister will be found to have risen.

prepared as follows: — Take Telini Fly finely powdered; White or Black Dammar, Bees-wax, and Suet, of each two ounces; liquify the three latter with a gentle heat, then remove from the fire and sprinkle in the Telini; mix the whole thoroughly, and continue to stir the mixture while it is allowed to cool.

350. *Remarks on the Use of Blisters.* Blisters are of great value in many cases, but unless used with care and discrimination they may do more harm than good. Thus a blister applied at the outset or during the acute stage of inflammation will increase the mischief, whereas in the advanced stages its action may prove in the highest degree beneficial. During pregnancy a blister to the chest has been known to induce premature labour, retention of urine, &c., and applied to a person suffering from scurvy it is apt to induce troublesome ulceration. To prevent gangrene, which has occasionally resulted from a blister, especially in children, it is advisable not to allow it to remain on more than four or five hours; then to remove it and apply a warm rice poultice. In infants a thin piece of muslin should be placed between the skin and the plaster. If strangury follow its use, the patient should drink plentifully of decoction of Abelmoschus (2), Rice Conjee (322), or other demulcents, avoiding those of an oleaginous nature. After the fluid has been let out, which is easily done by snipping the raised cuticle in two or three places with a pair of sharp-pointed scissors, the blistered surface should be dressed with plantain leaf as directed in paragraph 307a.

351. *Tinospora cordifolia*, *Miers.*, Gulancha.

Gulanchá, Gul-bél (*Hind.*), Gul-bél (*Duk.*), Gul-lanchá (*Beng.*), Shindi-kodi (*Tam.*), Tippa-tíge, Gadúchi (*Tel.*), Amruta, Chitr-amruta (*Malyal.*), Amruta-balli (*Can.*), Gula-véí (*Mah.*), Gul-vél (*Guz.*), Rasa-kinda (*Cing.*), Sinza-manné, Singomoné (*Burm.*).

351*b*. This twining shrub is common in most parts of India. The root and stems, which are the parts employed in medicine, should be collected in the hot season when the bitter principle is most abundant and concentrated. As met with in the bazaars it consists of dried transverse segments of a woody stem, varying in diameter from $\frac{1}{4}$ of an inch to 2 inches, and from $\frac{1}{2}$ an inch to 2 inches in length; they have a shrunken appearance, and are covered with a smooth shrivelled bark, some of the pieces being marked on their surface with warty prominences; inodorous, of a very bitter taste.

352. Gulancha is a very useful tonic, and is best given in infusion; 1 ounce of the bruised stem to half a pint of cold water macerated for three hours and strained; of this the dose is from 1 to 3 ounces thrice daily; it is rendered more agreeable by the addition of an equal quantity of Infusion of Cinnamon. It has been used with benefit in mild forms of *Intermittent Fevers*, and in *Constitutional Debility*, and *Loss of Appetite after these and other fevers*. It has also been found useful in some forms of *Dyspepsia*, and in *Chronic Rheumatism*.

353. An Extract (Satté-gilo, *Hind.*; Gul-bél-kásat, *Duk.*; Shíndal-sharuk-arai, *Tam.*; Palo, *Beng.*; Tippa-sattu, *Tel.*), is prepared by the native doctors, which is in much repute amongst them in *Intermittents*, *Spleen affections*, &c. It is a white floury substance, with a strongly bitter taste. It seems worthy of a trial.

354. **Toddy.** A saccharine juice obtained by the excision of the spadix or young flowering branch of the Palmyra, Cocoa-nut, and other Palms.

Séndí, Tári (*Hind.*, *Duk.*), Kallu (*Tam.*), Kallu (*Tel.*), Henda (*Can.*), Rá (*Cing.*).

There are many kinds of Toddy in India, and they are named according to the plants from which they are produced. The names given above are generic.

355. Amongst its other uses Toddy is valuable as the basis of a very useful stimulant application, the TODDY POULTICE, which is to the Indian what the yeast poultice is to the European surgeon. It is prepared by adding freshly-drawn toddy to rice flour till it has the consistence of a soft poultice, and subjecting the mixture in an open vessel to heat over a gentle fire, stirring constantly till fermentation commences, or it "begins to rise," as it is commonly expressed. This, spread on a cloth and applied to the parts, acts as a valuable stimulant application to *Gangrenous or Sloughing Ulcerations*, *Carbuncles*, *Indolent Ulcers*, &c. It hastens the separation of the slough and establishes subsequent healthy action.

356. Toddy left exposed to the air rapidly un-

dergoes vinous fermentation, and becomes converted into ARRACK, one of the most intoxicating drinks of the country. This arrack, subjected to distillation until it has a specific gravity of .920, may be employed as Proof Spirit in the preparation of tinctures and other pharmaceutical purposes, and in the formation of cold evaporating lotions (380).

Turmeric. The dried root-stock of *Curcuma longa*, *Linn.*

Halad, Haldí (*Hind., Duk.*), Holodí (*Beng.*), Manjal (*Tam.*), Pasupu (*Tel.*), Mannal, Marin-nala (*Malyal.*), Arishiná (*Can.*), Halede (*Mah.*), Halad (*Guz.*), Kahá (*Cing.*), Sanó, Tanún (*Burm.*)

358. Turmeric has been employed in the following affections with excellent effects:—

359. *In Catarrhs*, or severe “Cold in the head,” the fumes of burning turmeric inhaled through the nostrils, act as a local stimulant or irritant, causing a considerable discharge of mucus from the nasal cavity; this is generally followed by a marked degree of relief to the congestion or fulness often so troublesome in these cases.

360. *In Catarrhal and Purulent Ophthalmia*, especially in that termed “Country Sore-Eye,” a decoction of turmeric (1 ounce of the bruised root to 20 ounces of water) proves a very effectual lotion for relieving the burning and moderating the urgency of the symptoms. A piece of soft rag soaked in it should be kept constantly over the affected eye.

361. Oil of Turpentine. The oil obtained by distillation from *Pinus palustris*, *Lamb.*, and other species of *Pinus*.

Gandhá-baróje-ká-tél (*Hind.*), Gandhá-férozé-ká-tél, Káfúr - ká - tailam (*Duk.*), Kapúrér - tail (*Beng.*), Karppúrat-tailam (*Tam.*), Karppúra-tailam (*Tel., Malyal.*), Karapúrada-tailá (*Can.*), Kápúrácha-tela (*Mah.*), Karpúrnu-tél, Tarpintan (*Guz.*), Kapuru-tel (*Cing.*), Piyo-sí (*Burm.*).

362. Oil of Turpentine is procurable in most large bazaars, but not generally sufficiently pure for internal administration. It answers, however, perfectly well for external or local application, and is most valuable in the preparation of Turpentine stupes or epithems, which are made in one of the following ways:—1. By steeping a flannel in hot water, as hot as can be borne by the hand, wringing it out dry and sprinkling the surface freely with oil of turpentine. 2. By steeping a piece of lint or rag of the required size in oil of turpentine, placing it over the affected surface, and immediately applying over it flannel heated before a fire as hot as can be borne. In either way it acts admirably as a counter-irritant, and in most cases is superior to mustard poultices. It is applicable to all cases of *Internal Inflammations, Spasmodic Affections of the Bowels, advanced stages of Dysentery and Diarrhœa, Flatulence, and Flatulent Colic, Chronic Bronchitis attended with Cough and Difficulty of Breathing, Asthma, &c.*

363. In some cases, greater benefit is derived from applying these stupes to a distant point rather than near to the affected part; thus in *Apoplexy*, *Insensibility*, *Convulsions*, *Delirium*, whether arising in the course of fever or otherwise, they produce the best effects when applied to the feet and to the calves of the legs. In *Cholera*, when applied successively to the abdomen, over the region of the heart, along the spine and to the extremities, they often seem materially to aid other measures in stimulating the system and raising the vital powers. Turpentine friction and turpentine enemas may also be resorted to as aids to other treatment.

364. Turpentine Enemas (1 ounce of the oil to 15 ounces of conjee) are valuable agents in many cases, as in *Apoplexy*, *Insensibility*, *Convulsions*, especially in those after childbirth, prolonged *Hæmorrhage* after *Abortion*, *Hysterical Fits*, *Spasmodic Affections of the Bowels*, *Flatulence*, *Flatulent Colic*, &c. They, together with turpentine stupes, have sometimes excellent effects in stimulating the system and rousing the vital powers in *Delirium* and *Exhaustion attendant on Fever*.

365. For the removal of *Thread worms* from the *Rectum* and *Lower Bowel*, a turpentine enema often proves effectual. In the treatment of *Tape Worm* Oil of Turpentine is a remedy of established value; it is best given in a dose of three drachms combined with an equal quantity of *Castor oil*; the latter is considered to prevent the unpleasant head symptoms which are apt to arise when the turpentine is given alone. It is best given two or three hours after a

meal; if taken on an empty stomach it is apt to produce vomiting. The patient should remain quiet after taking it, and broths and mucilaginous drinks should be taken during its operation. The oil of turpentine for this purpose should be obtained from a regular chemist or other reliable source.

366. Turpentine Liniment is a valuable application in *Chronic Rheumatism, Lumbago, Sciatica and other forms of Neuralgia, in Chronic Enlargement of the Joints, Bruises, Sprains, Muscular Pains, &c.* It is formed by dissolving 1 ounce of camphor in 16 ounces of oil of turpentine, and then adding 2 ounces of soft soap, rubbing them together until they are thoroughly mixed. *Chronic Coughs*, especially of the aged, are much benefited by this liniment well rubbed into the chest at night.

367. Turpentine Ointment is prepared by melting together at a gentle heat 1 ounce of oil of turpentine, 60 grains of White or Black Dammar (372), and $\frac{1}{2}$ ounce of Yellow Wax and of Prepared Lard (or Kokum Butter). The ingredients when melted together should be removed from the fire, and the mixture constantly stirred whilst cooling. It constitutes a good stimulant application to *Indolent and ill-conditioned Ulcerations, Carbuncles, &c.*

367 bis. Tylophora, or Country Ipecacuanha. Tylophora asthmatica, *W. et A.*

Anta-múl, Janglí-pikván (*Hind.*), Pit-kári (*Duk.*), Anto-mul (*Beng.*), Nach-churuppán, Náy-pálai, Péyp-pálai (*Tam.*), Verri-pála, Kukka-pála (*Tel.*), Valli-pála (*Malyal.*), Bin-nuga (*Cing.*).

368. This plant is common in sandy localities in Bengal, and other parts of India. Its root and leaves possess valuable emetic properties ; the former as met with in the bazaars, occurs in the form of thick contorted pieces of a pale colour, and a bitterish, somewhat nauseous taste. As an emetic, and especially as a remedy in dysentery, it has long been in repute, but it has been superseded by the dried leaves, the operation of which has been found more uniform and certain ; in fact they are justly regarded as one of the best indigenous substitutes for Ipecacuanha. The dose of the powdered dried leaves as an emetic for an adult is from 25 to 30 grains, with half a grain or a grain of Tartar Emetic, if a strong emetic is required ; in smaller doses, 4 to 8 grains, its action is that of an expectorant and diaphoretic.

369. *In Dysentery and Diarrhœa*, even in the earliest stages, and whilst fever is present, it may be given in doses of 5 to 10 grains three or four times daily, conjoined with mucilage and opium if required, or it may be commenced in one large dose in the same way as Ipecacuanha (see Index). If the dysentery be connected with intermittent fever, or be of malarious origin, it should be combined with quinine.

370. *In Chronic Bronchitis, Coughs, Colds, and the early stage of Hooping Cough*, it has been administered with manifest benefit as an expectorant and diaphoretic, in doses of 5 grains thrice daily or oftener, either alone or combined with Syrup of Country Liquorice (6).

371. *Vateria Indica*, *Linn.*, Resin of. Piney, or White Dammar.*

Suféd-dámar (*Hind.*, *Duk.*), Kúndro (*Beng.*), Vellai-kúndrikum (*Tam.*), Dúpa-dámaru, Tella-dámaru (*Tel.*), Vella-kúnturukkam (*Malyal.*), Hal, Hal-dumula (*Cing.*).

372. The specimens of White or Piney Dammar are met with in the bazaars in irregular masses, which differ in colour, fragrance, and density; some being of a light-greenish colour, dense and uniform in substance, whilst others are yellow amber-coloured, and vesicular or full of small bladders; these differences apparently arise from the mode of collection and the age of the trees producing them. This resin burns with a clear steady light, giving off a pleasant smell, but very little smoke; under the influence of gentle heat it combines with wax and oil, and forms a good substitute for officinal Resin in various ointments and plasters. The following is an eligible form for common use. Take of White Dammar, 5 ounces; Lard or Kokum Butter, 8 ounces; Wax, 2 ounces. Melt with a gentle heat, stirring briskly as it cools. This spread on rag or lint forms a good stimulant dressing for *Carbuncles and other Ulcerations*.

373. From the fruit of *Vateria Indica*, *Linn.*, common on the Western Coast of the Peninsula, is ob-

* In the absence of White Dammar, Black Dammar, the resin of *Canarium strictum*, *Roxb.* may be substituted. Its native names are Kalá-damar (*Hind.*, *Duk.*, *Beng.*), Karuppu-damar (*Tam.*), Nalla-rojan (*Tel.*), Kálo-damar (*Guz.*)

tained a solid fatty oil named PINEY TALLOW or VEGETABLE TALLOW OF CANARA, which has obtained considerable repute as a local application in *Chronic Rheumatism*, and some other painful affections. Like Kokum Butter, it may be used as a substitute for lard and other animal fats in the preparation of ointments, &c. It is deserving of more attention than has hitherto been paid to it.

373a. Vernonia Seeds. The seeds of *Vernonia anthelmintica*, *Willd.*

Sómráj, Bukchí (*Hind.*), Sómráj (*Beng.*), Káttu-shíragam (*Tam.*), Adavi-jíla-kara, Visha-kantakálu (*Tel.*), Káttu-jírakam (*Malyal.*), Kádu-jirage (*Can.*), Ránácha-jiré (*Mah.*), Kadvo-jiri (*Guz.*), Sanni-náegam, Sanni-násang (*Cing.*).

373b. The plant which yields these seeds is common in waste places near villages throughout India, and the dried seeds are met with in almost every bazaar; they are about an eighth of an inch in length, of a dark brown colour, covered with whitish scattered hairs, cylindrical, tapering toward the base, marked with about ten palor longitudinal ridges, and crowned with a circle of short brown scales; taste nauseous and bitter. These seeds enjoy a high repute amongst the natives as a vermifuge in cases of *Lumbrici* or *Round Worms*, which, under their use, are stated to be expelled in a lifeless state, thus showing that they exorcise a specific influence on the worm. The ordinary dose of the bruised seed,

administered in electuary with honey, is about 2 drachms, given in two equal doses at the interval of a few hours, and followed by an aperient. In this character they seem well worthy of further trials. In Travancore, the bruised seeds, ground up into a paste with lime juice, are largely employed as a means of destroying *Lice* infesting the body. The reports received of their efficacy for this purpose justify further trials with them.

374. Vinegar.

Sirká (*Hind.*, *Duk.*, *Beng.*), Kádi (*Tam.*), Kádinóllu (*Tel.*), Káti (*Malyal.*), Hulirasa (*Can.*), Kádi, Vená-kiri (*Cing.*), Pón-ye (*Burm.*).

375. Many kinds of Vinegar are met with in India, but as they are of very varying strength and degree of purity, the imported English Distilled or White Wine Vinegar should be preferred, when procurable, as it generally may be in large bazaars, for medical purposes. In its absence, the best native kinds, especially that prepared from the Toddy of the Palmyra tree should be used.

376. In *Small Pox*, *Measles*, *Scarlet Fever*, and other *Febrile Affections*, a mixture of 1 part of Vinegar and 4 of water forms a soothing and refreshing application, with which the whole surface may be sponged twice or thrice daily; the temperature being regulated as described in Sect. 385. Sprinkled about the sick room, in these and other cases, undiluted vinegar acts in a degree as a deodorant, and is generally very agreeable to the patient.

377. *In Relaxed, Ulcerated and other forms of Sore Throat, especially in that of Scarlet Fever, in Hoarseness, &c.*, benefit is often derived from the inhalation of the vapour of hot Vinegar.

378. *In Phthisis*, sponging the chest with diluted Vinegar is said to be very effectual in allaying the *profuse perspirations*. A good mixture for this purpose is composed of 1 part of Vinegar, 1 of Eau de Cologne, and 2 of Water: it is a measure attended with salutary effects, and is generally of great comfort to the patient. *As a preventive of Phthisis* the practice has been strongly recommended of washing the chest every morning with vinegar and water, beginning with it tepid, and reducing the temperature gradually, until it can be used quite cold. The same measure persevered in has been found useful by persons subject to repeated attacks of *Coughs and Asthma*; it often seems to diminish the liability to a return of these attacks, and to act as a preventative.

379. *In Abortion and other forms of Uterine Hæmorrhage*, the continued application of cold Vinegar and water to the pubes is not only agreeable to the patient, but tends considerably to arrest the discharge of blood. In the absence of better agents, Vinegar diluted and sweetened to taste may also be advantageously given internally. *Bleeding from the Nose* sometimes yields to a piece of rag saturated with Vinegar introduced into the nostril.

380. *To Bruises, Sprains, Contusions, and local Inflammations*, diluted Vinegar is a popular and useful application. An excellent "evaporating lotion" in these cases is formed of equal parts of Vinegar,

Arrack, and Water. This forms also a good application to the head in the *Headache and Delirium of Fever*. Tho pain of *Venomous Bites, or Stings, e.g., of Scorpions, Centipedes, Wasps, Mosquitoes, &c.*, is often greatly relieved by the constant application of a piece of rag moistened with Vinegar.

381. *To Milk or Mammary Abscesses* warm Vinegar, perseveringly employed for twenty-four hours, is stated on good authority to be one of the best applications which can be used for relieving the congestion; it is particularly useful when the breasts are greatly and painfully distended with milk, and the earlier in the case it is employed, the greater are its chances of success.

382. *Particles of Lime (Chunam) in the Eye* are effectually dissolved and the pain eased by bathing the eye with diluted Vinegar, not strong enough to cause smarting; it requires to be introduced between the eyelids.

383. Water.

Páni (*Hind., Duk., Beng., Guz., Mah.*), Tanni Jalam, Nir (*Tam.*), Jalam, Níllu (*Tel.*), Vellam (*Malyal.*), Vaturu (*Cing.*), Yé (*Burm.*).

384. Water for medicinal purposes, *e.g.*, making infusions, decoctions, &c., should be the purest which can be procured. At certain seasons, however, especially during the monsoon, the best water is apt to be so muddy as to be unfit either for medicinal or drinking use. Under these circumstances, recourse may be had to the native practice

of rubbing the inside of a vessel or chattle with Clearing Nut,* bruised or sliced, previous to the water being poured into it. This simple measure is said to render the muddiest water clear and wholesome. Where water has been collected from swampy or malarious localities, a better plan is to subject it (with the addition of a piece of freshly prepared charcoal) to *boiling*, and subsequent straining or filtering. The uses of water in medicine are multifarious and important.

385. *As a drink in Fever and Inflammations*, cold water may be taken without restriction, and it may be rendered more refrigerant and agreeable by the addition of some mucilaginous agents, as rice, &c., and some vegetable acid, as tamarind pulp or lime juice. *In Small-pox, Measles, Scarlatina, and other Fevers*, the practice of freely sponging the surface once or twice daily with water is extremely grateful and refreshing to the patient, and may be used with perfect safety unless the heat be high above the natural standard, when tepid water should be substituted. As a general rule, the temperature of the water should be regulated by the patient's feelings; it should be cold, tepid, or quite warm, as is most agreeable. A mixture of vinegar and water (1 part of the former to 4 of the latter) is even more refreshing than plain water.

386. *In Sun-stroke*, the first thing to be done after

* The Seeds of *Strychnos Potatorum*, *Linn.* Nir-mali (*Hind.*, *Beng.*, *Mah.*, and *Guz.*), Chil-binj (*Duk.*), Tétrán-kottai (*Tam.* and *Malyal*), Tétrán-parala (*Tel.*), Ingini-atta (*Cing.*), Kamou-yeki (*Burm.*).

removing the patient into the shade and taking off the head-gear and upper clothing, is to practise cold affusion. For this purpose he should be held in a sitting posture, whilst the water, the colder the better, is poured down in a pretty full stream, at a height of two or three feet over the head, spine and chest. After its application for a minute or two, the patient will probably heave a deep sigh or inspiration, when the affusion should be discontinued and the patient removed to a dry spot, thoroughly dried with a warm cloth or towel, and diligent friction maintained till full consciousness is restored. Mustard poultices (247), turpentine stupes (362) to the feet and calves are also advisable if insensibility be long continued. One or two points demand attention. 1. The water should not descend all at once, but rather in a small continuous stream, and it should be directed not so much on the top of the head as on the back part and upper portion of the spine. 2. It should at once be discontinued when the patient begins to revive. 3. It is not adapted for the aged and debilitated, or when the skin is cold and clammy; in these cases affusion should be restricted to the face and chest, together with persevering friction; and when the patient is able to swallow, recourse should be had to mild stimulants, *e.g.*, ammonia, brandy mixture, and to nourishing diet. The above treatment is adapted to *Apoplexy and Profound Insensibility, such as occurs in Poisoning by Opium, Bish (Aconite), or the fumes of Datura.* In ordinary cases of *Fainting, Convulsions in Adults arising from no evident cause, and Hysterical Convulsions*

in Women, simply dashing cold water with some little degree of violence on the face and bosom, is generally all that is required.

387. *In the Convulsions of Infancy and Childhood*, the little patient should be put into a hot bath, with as little delay as possible, the head at the same time being held slightly elevated, and enveloped in cloths kept wet with cold water, the colder the better. Under the simultaneous use of the hot bath and the cold lotion to the head, aided by the exhibition of a dose of Castor oil, the convulsions will often speedily subside. The bath should be as hot as can be borne, about 98° F., and the child should remain in it for 10 or 15 minutes, but the cold to the head may be continued for some hours. Should the convulsions return, the bath may be repeated, and small mustard poultices (247) applied to the feet. A hot bath is also very useful in allaying *Colic in Children*.

388. *To check violent Hæmorrhage or Flooding after Labours*, nothing is much more effectual than dashing cold water in a pretty full stream, and with some little degree of force, over the abdominal surface, especially the lower portion. At the same time, a piece of soft rag, made into a pyramidal form, thoroughly saturated with cold water, or vinegar and water (in equal parts), should be introduced into the vagina. After the flooding has been subdued, the external application of cold water, or vinegar and water, should be kept on for some time. *N.B.*—During a confinement in India, it should be an invariable rule, to meet such an

emergency as the above, to have ready at hand two or three chatties of *cold* water, for a patient may die from loss of blood if the water has to be fetched from a distant source.

389. *In Cholera*, the free use of cold water as a drink, appears materially to aid other treatment, of whatsoever kind that may be; it should be as cold as procurable, iced, if possible, and taken in large and repeated draughts; although the first four or five draughts may be rejected, its use should be persevered in; the stomach will eventually retain it, and when this is effected, a beneficial change in the state of the patient generally takes place. Whatever other treatment is adopted, cold water (iced, if possible) in copious draughts is a valuable auxilliary, perfectly safe, agreeable to the patient, and likely to be productive of the best effects.

390. *Many forms of Sore Throat, and Coughs attended with Difficulty of Breathing and Scanty Expectorations*, are much benefited by repeated inhalations of hot water, and their efficiency is increased by the addition of mucilaginous agents, as *Abelmoschus* (1). *In Croup*, relays of sponges filled with water, as hot as the little patient can bear, should be applied immediately beneath the chin, along the whole course of the throat. They should be persevered in for half-an-hour, and then discontinued if they fail to produce benefit. In severe cases, turpentine stupes (362) prove more serviceable.

392. *In many painful affections of the Kidneys, Bladder, and Uterus, in the passage of Gall Stones, and in Retention of the Urine from Spasmodic Stricture*, as

after a debauch or exposure, the hot hip bath proves highly serviceable and soothing.

393. Hot water fomentations are very serviceable in many cases, *e.g.*, *Local Inflammations, Incipient Abscesses, Boils, Sprains, Lumbago, Colic and Spasmodic Affections of the Bowels, Congestion of the Liver, Asthma, etc.* To obtain their full effect, a few points require to be attended to. 1. The water should be as hot as can be borne. 2. Two or more thickly folded cloths (if flannel so much the better) of a size rather larger than the surface they are to cover, should be in readiness. 3. One of these having been removed from the water, should be thoroughly wrung, so that it should hold no superfluous moisture, and should be immediately applied to the surface. 4. A second cloth having been got ready in the same way, the first, after the lapse of two or three minutes, should be removed, and the second applied. This process should be repeated for half-an-hour if necessary, care being taken that the water be kept at the original temperature by means of fresh relays, and that there should be no longer interval than possible between the removal of one and application of the succeeding fomentation. Subsequently, care should be taken to protect the fomented part from exposure to cold draughts of air. Some forms of *severe Headache, especially those occurring in Fevers*, are reported to be far more benefited by hot water fomentations, or stupes thus applied, than from cold lotions commonly employed for the purpose.

394. *In the treatment of Wounds, Ulcers, and In-*

flamed Surfaces, "water dressing" possesses many advantages, especially in tropical regions, over poultices and ointments. The process is exceedingly simple, consisting only of a piece of lint of thick texture, and of sufficient size as completely to cover the wound, soaked in tepid water. This is placed on the affected part, and the whole enveloped in an ample piece of oiled silk so as effectually to prevent evaporation. Young plantain leaf answers the purpose as well as oiled silk. Cold water may be substituted for tepid, should it be more agreeable to the feelings of the patient.

395. *Sloughing and Gangrenous Ulcerations, and Carbuncles*, ("Rajah Boils,") after suppuration, are more effectually treated by what is termed "irrigation," which consists in keeping up a continuous stream of water, tepid or cold, as the patient may prefer, for half-an-hour twice daily. A common kettle, or one of the native drinking vessels provided with a spout, answers well for the purpose, and it should be held so that the fall of water should be about a foot, or rather more, but the height should be regulated in a measure by the patient's feelings. If pain is caused, the height should be diminished. With each irrigation, more or less of the slough comes away, and in a few days the ulcer will, in most instances, assume a healthy appearance, when it may be treated as an ordinary ulcer—with cold water dressing, wax, ointment, &c. In the intervals between the irrigations, Toddy Poultices (355) should be applied.

396. Another way in which water may be utilised

is in the formation of a *Vapour Bath*, which is often a most serviceable resource in *Chronic Rheumatism*, *Obstinate Skin Diseases*, *Dropsical Affections*, *early stages of Diabetes*, &c., and in all cases where the skin is dry, rough, and not much above the natural standard. It is inadvisable in fever cases. *Incipient Colds and Catarrhs* following exposure to wet, &c., may often be speedily arrested by a vapour bath, taken immediately before going to bed at night.

397. The Vapour Bath apparatus, which should be kept ready in all large establishments in India, consists of a bamboo frame of a conical shape, covered with wax cloth or some other impervious material; it should be large enough to enclose the whole body (when the patient is in a sitting posture), and an aperture with a loose frill attached, so as to tie round the patient's throat should be left at the apex. Under this the patient, divested of his clothing, should sit with the head and face projecting through the opening at the top, and a chattie or open vessel of boiling water having been introduced, sweating soon commences and should be kept up for a quarter of an hour or more. Then the patient should be thoroughly dried with warm rough towels and go to bed, or to some other place where he will be effectually protected from cold draughts of air.

398. The Wet Sheet has been highly spoken of in the treatment of *Delirium Tremens*; it is applied as follows:—Strip the patient naked and roll him in a wet sheet till he looks like a mummy, and then roll a blanket round this again. In many cases the delirious excitement will subside as soon as a hot

vapour surrounds the patient, and he will fall into a quiet sleep. It should be used with caution in the case of an old debilitated drunkard.

398. Wax.

Móm (*Hind.*, *Duk.*, *Beng.*), Mozhukka (*Tam.*), Máinam (*Tel.*), Mezhuka (*Malyal.*), Ména (*Can.*, *Mah.*), Mín (*Guz.*), Ittí (*Cing.*), Phayoui (*Burm.*).

399. Wax, obtainable of good quality in most bazaars, has no especial medicinal properties; it is however extensively used in the formation of ointments, plasters, &c., for the purpose of giving them consistence, and a mildly stimulant action. The following is stated to be an excellent stimulant application to "*Blind Boils*," so common at certain seasons in many parts of India; it is thought to bring them to a head sooner than any other remedy. Take of Indian Bdellium,* Wax, and Sesamum oil, of each one ounce; melt together with a gentle heat, stirring well, and strain. A portion of this spread on rag or lint, should be placed over each boil. It is also a good dressing for subsequent *Ulceration*.

* Gágul, *Hind.*, the gum resin of *Balsamodendron Mukul*, *Hooker*, and *B. pubescens*, *Stock*.

ADDENDA.

(COOKERY FOR THE SICK.)

400. Mutton Broth and Beef Tea.

Take a pound of meat, free from fat; cut it into small pieces, about the size of a nutmeg or smaller, and let it stand for one hour in a pint of cold water. Then add half a dozen Okra (1) cut transversely, and boil at a gentle heat to half a pint; strain and flavour with salt and pepper to taste. It should be freshly prepared daily.

It is advisable always to keep in store a good sized jar of Liebig's Extract of Meat, as beef and mutton are not always available at remote out-stations. Directions for use accompany each jar.

401. Chicken Broth.

This is prepared in the same manner as the preceding, a full grown fowl being substituted for the pound of meat. The two essential points to be attended to being, that the flesh is cut small or well bruised, and that it stands for an hour in cold water previous to being put on the fire. Half grown fowls will answer for children. Like the preceding it should be prepared fresh daily.

402. Rice Milk.

Boil one table-spoonful of ground rice with a pint and a half of milk, or equal parts of milk and water ; stir it smooth, and boil for two minutes ; flavour with sugar and nutmeg. A very nourishing food for children.

403. Arrowroot.

Take a table-spoonful of the best Arrowroot, and make it into a thin paste with a little water ; then add gradually half a pint of boiling water, stirring it the whole time. Put it on the fire for two or three minutes, still continuing to stir it till the whole is uniformly mixed, then remove it from the fire and add grated nutmeg, sugar, &c., to taste. If made with milk instead of water, it is more nourishing, but when the stomach is weak it sometimes disagrees, and then water is preferable. It should be prepared fresh when required.

404. Sago.

Add a table-spoonful of the best Sago to a pint of water, and let it stand for two hours, then boil for a quarter of an hour, stirring the whole time, till it forms a clear uniform jelly. Remove from the fire, and flavour with sugar, nutmeg, &c.

405. Brandy Mixture.

Take of Brandy and of Water each four table spoonfuls, the yolks of two Eggs and half an ounce of powdered white Sugar. Put the yolks and sugar together, then add the spirit and water, and flavour with grated cinnamon or nutmeg.

This is a valuable stimulant and restorative in the low forms and advanced stages of *Fever*, *Small Pox*, *Measles*, *Exhausting Hæmorrhages*, *Cholera*, and other cases where the vital powers are greatly depressed. The dose for adults is from two to three table spoonfuls repeated according to circumstances ; for children from one to three table spoonfuls according to age or the urgency of the symptoms.

406. *In Delirium Tremens* this is one of the best forms of stimulant, combining as it does nutritive with stimulant properties ; indeed, when other food is rejected, the proportion of eggs may be doubled or trebled. In the young and vigorous, and in first attacks, all alcoholic drinks may be safely and strictly withheld, but should there be a great craving for drink, *Omum Water* (320) may be tried, as it is said to relieve this condition. In the old debilitated confirmed drinker, however, stimulants become a necessity, and Brandy Mixture in doses of 1 to 2 ounces may be given at stated intervals as required, but the patient should not be allowed to sip it, or take it occasionally as he thinks fit.

407. White Wine Whey.

Take one pint of fresh milk, add mace, nutmeg and cinnamon, with sugar to taste. Put it on a clear slow fire, stirring, until the milk is on the point of boiling over. Then take it off and throw in one or two wine glassfuls of Sherry or Madeira. Put it on the fire again, stirring it gently one way until it curdles, and remove to cool, and strain through cloth or muslin. This taken at bedtime, the patient being well covered with clothes, so as to produce copious perspiration, has often an excellent effect in arresting incipient attacks of *Catarrh*, &c.

408. Strengthening Jelly.

Steep 2 ounces of Isinglass or Prepared Gelatine, 1 ounce of Gum Arabic, 5 ounces of Sugar Candy, and a grated Nutmeg in a bottle of Port wine all night. In the morning, simmer over a slow fire till quite dissolved; then strain and set aside in a cool place till it forms a firm jelly. A piece the size of a nutmeg may be taken five or six times a day. This jelly is admirably suited for cases of debility when the stomach is unable to bear animal food.

PART II.

SYNOPSIS OR INDEX OF DISEASES.

The numbers have reference to the paragraphs ; the asterisk () denotes those most deserving of attention.*

Abdomen, Flatulent Distension of. See *Flatulence*.

Abortion. Use Vinegar externally and internally (379) ; if great restlessness or pain is present, give Opium (289) ; if the hæmorrhage continue unabated, apparently from want of power in the uterus to contract, try Borax and Cinnamon (58), or administer a Turpentine enema (364) † With these exceptions, let nature complete her work by herself ; more harm than good may result from meddlesome interference. Perfect rest of mind and body, a strictly recumbent posture in a cool, well ventilated apartment, and careful avoidance of all stimulant articles of diet, &c., are essentials to successful treatment. *Threatened Abortion from a fall, over exertion, &c.*, may sometimes be averted by a dose of Opium (289), and strict attention to the above hygienic rules. See also *Hæmorrhage, Internal*.

Abscess. In the early stage apply Hot Water

† In cases where there is much hæmorrhage which does not abate under the above means, the Acetate of Lead and Opium Pills advised for Hæmorrhage, Internal (foot note) may be given with signal advantage.

Fomentations (393); if there be much inflammation and pain, apply Lecches (212), and keep constantly to the part a solution of Sal Ammoniac (325), or Evaporating Lotion (380). If matter forms, apply Rice Poultices (322); when it comes so near the surface that it can be felt fluctuating under the finger, the abscess should be opened with a lancet at the most prominent point, and after the matter has been evacuated by gentle pressure, the Rice poultices should be continued, and changed twice or thrice daily. Should the pain be so great as to prevent sleep, a dose of Opium (283) or Tincture of Datura (128) at bed time is advisable. Should the discharge be profuse and the patient weak, support the strength with a liberal diet and tonics, as Chiretta (98, 99), or Country Sarsaparilla, (163), or Nim Bark (260). N.B.—Abscesses in the neck should only be opened by a doctor, or by one who is conversant with the anatomy of the part.

Acidity of the Stomach. See *Stomach, Acidity of.*

Acids, Poisoning with. Give copious draughts of Lime Water (228) and milk, or, if this be not at hand, soap and water, or chalk, or the plaster of the apartment beaten up with water. Rice conjee (322) and other mucilaginous drinks, white of eggs, or draughts containing any bland oil should be given freely. Much of the success in these cases depends upon the promptitude with which the remedies are applied.

Ague. See *Fever, Intermittent.*

Ague Cake. See *Spleen, Enlargement of.*

Amenorrhœa. See *Menstrual Discharge, Suspended.*

Anus, Prolapsus of. See *Bowel, Descent of.*

Aphthæ, or Aphthous Ulceration. See *Mouth, Ulceration of.*

Apoplexy. If the patient is young and vigorous, pour cold water from a height on the head and spine as directed in 386. Keep Evaporating Lotion (380) to the head; give a Croton Pill (120), or if the patient is unable to swallow, place a drop or two of Croton Oil (121) at the back of the throat. Apply Turpentine Stupes (363) or Mustard Poultices to the feet and calves. Should the insensibility continue, give a Turpentine enema (364). For the old and debilitated, and for natives generally, a little Brandy Mixture (405), or other stimulant judiciously given, offers a better prospect of success than blood-letting, which should never be had recourse to except under medical supervision.

Appetite, Loss of. First try Chiretta (98, 99*); should this fail, give one of the following; Sweet Flag Root (12), Country Sarsaparilla (163), Ním Bark (260), or Gulancha (352). Stomachics, as Capsicum (79), Cinnamon (102), or Cloves (105) may be advantageously combined with them, care being taken at the same time to regulate the bowels.

Arsenic, Poisoning with. As speedily as possible empty the stomach by an emetic of Sulphate of Copper (117) or Mustard (246), and then give copious draughts of white of eggs beaten up in milk, or a mixture of equal parts of Limo Water and Sesamum, Cocoa-nut, or other bland oil.

Powdered sugar has been advised in these cases, but if of any service, it can only act like the preceding mixtures, mechanically, by enveloping the particles of the poison; this remark applies also to powdered Charcoal, which has also been well spoken of. When the vomiting has abated, give a full dose of Castor Oil (84) to carry off any of the poison which may have passed into the intestines, and this may be repeated every day for two or three days. Should there be great exhaustion, a little stimulant, as Brandy Mixture (405), may be given, and a dose of Opium may be advisable, to subdue any subsequent great pain and restlessness.

Asthma. To relieve the severity of a paroxysm, try one or more of the following: Turpentine Stupes (362*), or Hot Water Fomentations to the chest (393), Camphor (70*), or Assafoetida (37) internally, and the inhalation of the fumes of Nitre paper (268*) or of Datura (129*). A cup of hot, strong, milkless, sugarless coffee, "café noir," drunk as hot as can be borne, sometimes gives great relief. Daily sponging the chest with Vinegar is thought to act in a measure as a preventive (378). A better preventive is the careful regulation of diet. Many a fit of asthma can be clearly traced to a hot supper, or some other error of diet.

Atrophy, or Wasting of the Body. Try Fish Liver Oil (142), with tonics, as Chiretta (98, 99), and change of air.

Bed Sores. To prevent these, bathe the parts daily with a solution of Camphor in spirit (75), and relieve the local pressure as much as possible by

change of position, &c. A small circular pillow with a hollow centre (just like the pads worn by the coolies on their heads in carrying weights, only thinner) is most useful for this purpose. Should the sore form, notwithstanding, it should be treated as an ordinary ulcer. See *Ulcer*.

Bish (Aconite Root) Poisoning with. Strong stimulants, as Brandy and Ammonia; Cold Water Affusion (386), and persistent friction of the limbs and spine, appear to offer the best chance of success. Decoction of Galls (152) has been advised as an antidote. Strong hot coffee (café noir) is worth a trial, if the patient can swallow.

Bites, Venemous, and Stings, e.g., of Centipedes, Scorpions, Wasps. All that is required in ordinary or mild cases, after immediate suction of the bite, is application of Vinegar (380), or a strong solution of salt and water. Inunction of warm oil has been highly recommended. If Ipecacuanha is at hand, a small portion of it made into a thick paste with a few drops of water, and locally applied is said in many instances to afford great and immediate relief. Brown Sugar is said to be specially useful in wasp stings. Should the symptoms be severe, as is sometimes the case, Liquor Ammoniacæ and stimulants, as advised for Snake Bites (Appendix B), should be given.

Bladder, Painful Affections and Irritable States of, are best relieved by Opium (286*) the free use of demulcents, as the Decoctions of Abolmoschus (2), Ispaghúl seeds (305), or Rice conjee (322), and the use of the Hip Bath (392).

Bleeding. See *Hæmorrhage*.

Blows. See *Sprains*.

Boils are to be treated much in the same way as Abscesses, by Hot Water Fomentations (393), Sal Ammoniac Lotion (332), and Rice Poultices (322). Leeches (212) are rarely necessary, unless there should be much pain and inflammation. Decoction of Country Sarsaparilla (163) may be given internally if there is any constitutional disturbance. A popular and useful "drawing plaster" is a compound of equal weights of Brown Sugar and English Yellow Soap; a still better one is the ointment described in paragraph 399; a portion of either of these spread on rag should be applied over each boil. *Rajah Boil.* See *Carbuncle*.

Bones, Scrofulous Affections of. Give Fish Liver Oil (138).

Bowel, Lower, Descent of. The protruded part having been carefully washed, should be replaced by gentle pressure with the hand: should there be any difficulty in doing this, the forefinger well oiled should be pushed up into the anus, and it will, unless the parts be greatly swollen, carry the protruded part in with it. The patient should then remain quiet for some hours in a recumbent posture, and apply cloths saturated with Decoction of Galls (147), or Babúl Bark (9), holding Alum (25*) in solution. Subsequently, enemas of the above solutions or others containing Sulphate of Iron (179), act usefully in constringing the parts and preventing a return of the accident. In weak debilitated subjects, Confection of Pepper (300) proves very serviceable.

The bowels should be kept open by mild aperients, of which Sulphur and Cream of Tartar (344) is by far the best. All straining at stool should be carefully avoided. A person subject to this accident, should wear a pad to keep the parts up.

Bowels, Spasmodic and other Painful Affections of. Mild cases generally yield to Omum Water (318*), Lemon Grass Oil (216), or the Infusions of Ginger (155), Dill Seeds (134), or Cloves (105), with or without a single dose of Opium (284). Severe cases require the repetition of the Opium (284) in Omum Water, &c., together with either Hot Water Fomentations (393), Mustard Poultices (251), or Turpentine Stupes (362) externally to the abdomen; followed in protracted cases by an enema of Turpentine (364), or Assafoetida (36). In all cases, a dose of Castor Oil is advisable when the pain has abated. *In Children.* See *Colic.* For *Irregularity of the Bowels*, try Bael Sherbet (45); *in that of Children*, Decoction of Kariyát Leaves (193). *Constipation of.* See *Constipation.* *Bleeding from.* See *Hæmorrhage.*

Breast, Abscess of, in Women. See *Milk Abscess.*

Breathing, Difficulty of, occurring without evident cause or in connection with a cold, sometimes yields to Camphor and Assafoetida Pills (70), and Turpentine Stupes (362), or Mustard Poultices (247) to the chest. Great relief, especially in the case of children, is often derived from external application of Betel leaves (48), or bags of hot salt. See also *Cough.*

Bronchitis, Chronic. Country Ipecacuanha (370), Assafoetida (37), and Fish Liver Oil (140) internally,

with Rice Poultices (322), Croton Liniment (122) and Turpentine Stupes (362) externally, may be used with advantage. The inhalation of the vapour of hot Decoction of *Abelmoschus*(2) is also serviceable. The temperature of the apartment should be kept as uniform as possible. For the relief of a paroxysm of cough, the fumes of burning Nitre paper (268) are worthy of a trial in all cases. A blister to the chest often affords great relief.

Bruises. See *Sprains*.

Buboes often subside under a careful, non-stimulant diet, perfect rest in the recumbent posture, and the continued application of Sal Ammoniac Lotion (332), the bowels being at the same time carefully regulated. Should matter form, treat as Abscess (*which see*). Should ulceration result, apply Borax Lotion (59), Resin Ointment (372), &c., as advised for ulcers.

Burning of the Feet in Natives. Try Henna, or Mhíndí Poultice (197).

Burns and Scalds. As soon after the accident as possible, apply freely to the whole of the burnt surface Lime Liniment (229), or in its absence, Jinjili Oil (337), or any other bland oil, dusting thickly over with Rice Flour; or even with simple Rice Flour without any oil as directed in paragraph 322. The object in each case is to prevent, as far as possible, the access of air to the burnt surface. These first dressings should remain undisturbed for at least twenty-four hours, and should then be repeated in the same, or in a modified form. Subsequent ulcerations should be treated with Ceromol (167) or Resin Ointment (372). Should the injured surface be extensive, the con-

stitution should be supported by liberal diet, tonics, and stimulants, as Brandy Mixture (405) at stated intervals. Any great restlessness or excessive pain may require a dose of Opium at bed-time (283).

Cancer. To relieve the pain and restlessness, give Opium (283) or Tincture of Datura (128). To correct the fœtor of the discharge, apply relays of Charcoal Poultices (91), cleansing the ulcer each time the poultice is changed with Borax Lotion (59). N.B. On the smallest suspicion of a cancer forming, no time should be lost in placing the case under regular medical care.

Carbuncle, "Rajah Boil" of the Natives. The treatment of the early stages is similar to that for Abscess (*ante*), only if leeches are deemed necessary, they should be placed round the edge and not on the hardened surface. When ulceration sets in, the Toddy Poultice (355) is useful in stimulating to healthy action; and the removal of the slough is greatly accelerated by the daily practice of Irrigation (395). Should there be much fœtor, apply Charcoal Poultices (91) and the Borax Lotion (59) as advised in *Cancer*. Opium (283) may be necessary to relieve pain and give rest. When the slough has come away, the ointments advised in paragraphs 367 and 372, or Ceromel (167) may be used as dressing. A generous animal diet, with a daily portion of stimulants should be allowed, and tonics, as Chiretta (98, 99), or Country Sarsaparilla (163), administered. Whenever practicable, the case should be placed under proper surgical care, as incisions are often necessary for the removal of the slough.

Cassava Root, Poisoning by. Give Lime Juice (234).

Castor Oil Seeds, Poisoning by. Give Lime Juice (234).

Catarrhs or Colds may often be cut short at the outset by a draught of hot Infusion of Ginger (156) or White Wine Whey (407) at bed time, and covering the body well, so as to produce copious perspiration. A Vapour Bath (396) will answer the same purpose. To relieve feverishness give Solution of Nitre (364), Decoction of *Abelmoschus* (2), and Country *Ipecacuanha* (370). Inhalation of the fumes of burning *Turmeric* (359) manifestly relieves troublesome congestion or fulness of the head, nose, &c. See also *Cough*.

Centipedes, Bites of. See *Bites, Venomous*.

Chest, Pains in, during Fevers. See *Fevers*.

Child-birth. See *Labours*.

Children, Debility of. To relieve pallor and wasting, give Country *Sarsaparilla* (163) and Fish Liver Oil (139), with generous diet, and gentle out-door exercise. A change of air will often do more good than medicine. *Constipation of,* See *Constipation*. *Convulsions of,* See *Convulsions*. *Colic of,* See *Colic*. *Coughs of,* See *Coughs*. *Diarrhœa of,* See *Diarrhœa*. *Difficulty of Breathing of,* See *Breathing, Difficulty of*.

Cholera. To check the premonitory diarrhœa or purging, give the Alum Powders (26), or Alum with Infusion of Sweet Flag (13), or Omum Water (318); should these not succeed in checking it, try a few of the Compound Pepper Pills (299), but it is unadvisable to continue them long on account of the

large proportion of Opium which they contain (285*)†. Should the disease progress, Dr. Ayre's plan or treatment (285*), if the ingredients are at hand, should be pursued, together with the persevering use of Lemon Grass Oil (216) and Omum Water (318), for the purpose of checking the vomiting, and stimulating the system. For the latter purpose also give an ounce (two table-spoonfuls) of the Brandy Mixture (405) every half hour or oftener, unless Champagne or other sparkling wine is available, this being decidedly the best form of stimulant in these cases—only it must be given in moderation at stated periods; more harm than good is done by overstimulation. The patient should be encouraged to drink plentifully of *cold* water, iced if possible; though the first draught or two may be rejected, it will soon be retained if persevered in. Chicken broth, or Lime Water and milk, may also be given plentifully as a drink. The other accessories to the above are Mustard Poultices (251) or Turpentine Stupes (363) over the heart (left side of the chest), bags of hot sand or salt to the spine, feet, and legs, and diligent friction with the hand or hot towels.

† One of the most useful forms of Cholera Pills, which should be commenced at the earliest stages when the purging sets in, is composed of 24 grains of Acetate of Lead and 2 grains of Opium, made into a mass with a few drops of Honey, and divided into eight pills. Of these one may be given every hour or half hour according to the urgency of the symptoms, till the whole eight have been taken; but this number should not be exceeded, in consequence of the quantity of opium they contain. Each pill may be taken in a wine-glassful of Omum Water.

At the same time the patient should not be moved about more than can be possibly helped. N.B.—During an epidemic of Cholera impress upon everybody the necessity of applying for medicines directly they feel unwell or have the slightest purging; those who come thus early for treatment stand a much better chance of recovery than those who delay even a few hours.

Chorea, St. Vitus's Dance. Fish Liver Oil (141), Infusion of Jatamansi (184), and Sulphate of Iron (177), alone or in combination, according to circumstances, are worthy of a trial. N.B.—This, as well as other nervous affections, is often due to intestinal worms; attention should therefore be paid to this point. (See *Convulsions*).

Cocculus Indicus, Poisoning by, Having emptied the stomach by an emetic of Sulphate of Copper (117) or Mustard (246), give copious draughts of Decoction of Galls (152), followed by a full dose of Castor Oil to carry off any of the poison which may have passed into the intestines. Brandy or other stimulants are required should there be great depression or exhaustion.

Colds. See *Catarrhs*.

Colic in Adults is to be treated in the manner described in Spasmodic Affections of the Bowels. *The Colic of Children*, usually connected with flatulence, generally yields to Omum Water (318*), Infusion of Dill (134), with or without Assafoetida (36), and a Hot Bath (387), followed by a dose of Castor Oil.

Constipation. For the immediate relief of this, aperients are required. Castor Oil (84) and Senna

(336-7) are best adapted for children and delicate females; Aloes (18, 19) for women suffering from irregularity or suspension of the menstrual discharge; Myrobalans (256) and Kaladana (187) for otherwise healthy adults, and Croton Pills (120) or Croton Oil when strong and speedy purgation is indicated. *The Constipation of Hysterical Females* is best treated by Aloes and Assafœtida Pills (19); *Habitual Constipation*, by Aloes, as directed in Paragraph 20; *that of Children* by Fish Liver Oil (139), together with the use of Oatmeal as an article of diet. A remedy for habitual constipation in children, as well as in adults, is to be sought for in tonics rather than in purgatives; the repeated use of the latter lays the foundation of great subsequent mischief. N.B.—The practice of native ayahs, of inserting a piece of tobacco stem into the anus of young children to relieve constipation, cannot be too strongly reprobated.

Consumption, Pulmonary. The persevering use of Fish Liver Oil (138) is chiefly to be relied upon, with or without Lime Water and milk (226) as an ordinary drink. Mustard Poultices (247) or Croton Liniment (122) to the chest sometimes give relief to *the Cough and Difficulty of Breathing*, as does the inhalation of the vapour of Hot Water (390) or Decoction of Abelmoschus (3). *For the Diarrhœa*, try the Alum Powders (26), or Sulphate of Copper (110). *For the excessive Perspirations*, sponge the chest with Vinegar (378). *For the Sore Mouth or Fissures of the Tongue*, apply Borax (55), or Alum (29). *For Bleeding from the Lungs* try some of the means mentioned in

Hæmorrhage, Internal. Vinegar, oexternally, is thought in a degree to act as a preventive (378).

Convulsions in Adults, arising without evident cause, are best treated by cold Affusion (386), Mustard Poultices (248), or Turpentine Stupes (363) to the feet and legs, and a strong purgative, as Croton Pills (120), Croton Oil (121), or Kaladana (187). If the patient be unable to swallow, a Turpentine enema (366) may be used. *When the Convulsions are due to poisons, &c., taken into the stomach,* an emetic of Mustard (246) or Sulphate of Copper (111) should precede all other measures. *In the Convulsions of Labours,* Turpentine Stupes (363) or Mustard Poultices (248) should be applied to the extremities, and Evaporating Lotion (380) to the head, whilst Camphor and Calomel Pills (73), or Borax and Cinnamon (58), are given internally. A Turpentine enema (364) may also prove useful. *The Convulsions of Children* are best treated with a Hot Bath (387), and a full dose of Castor Oil (84), preceded by one or two grains of Calomel when at hand, or a dose or two of Assafœtida Mixture (36). When the child is very much exhausted, a few drops of Brandy, 3 to 6 or more, according to age, are often most useful. Convulsions of early childhood are frequently connected with teething, hence lancing the gums is often of essential benefit.

N.B.—Many of the convulsive and nervous affections occurring in Natives and Anglo-Indians are very frequently due to the presence of worms in the intestines; their existence may perhaps be unsuspected or even denied; hence in all cases which resist ordinary treatment, it is advisable to give a trial

to one or more of the remedies recommended for *Worms*, especially those for the *Lumbricus* or *Round Worm*, which is so extensively prevalent in India.

Corrosive Sublimate, poisoning by. See *Mercurial Salts, Poisoning by.*

Coughs. Try Sal Ammoniac (329) and Country Ipecacuanha (370); with Rice Poultices (322) or Mustard Poultices (247), Turpentine Liniment (366), or Camphorated Opium Liniment (291) externally, and the inhalation of the vapour of Hot Water (390) or Decoction of Abelmoschus (2). If severe, a blister (349, 350) to the chest may be necessary. *In Chronic cases, especially when attended with much expectoration and debility,* give Fish Liver Oil (140). *In Spasmodic Coughs,* violent paroxysms may be relieved by inhaling the fumes of Nitre Paper (268), or by smoking Datura (129). *For the Cough of Old Age,* Cubebs (126) is worth a trial. *For the Cough of Childhood,* Syrup of Country Liquorice (6), Assafoetida (37), Honey and Vinegar (166), and Fish Liver Oil, may be resorted to according to circumstances. Camphor Liniment (70) Mustard Poultices (247), or bags filled with hot salt, or better still, Betel Leaves (48), applied externally, tend to *relieve difficulty of breathing in these cases.* Sponging the chest with Vinegar is thought to lessen the liability to attacks (378).

Coup-de-Soleil. See *Sun-stroke.*

Croup. Sulphate of Copper (111) as an emetic, and Hot Water stupes (390) externally, are valuable accessories in the treatment of this disease.

Datura, Poisoning by swallowing the seeds of, &c.,

is to be treated in the manner directed for Opium poisoning. Where insensibility arises from the inhalation of the fumes, Cold Water Affusion (386) in the open air, often succeeds in removing it at once. The patient should be aroused by any or all of the means enumerated in poisoning by Opium. The nervous symptoms may continue for two or three days, and yet recovery follow.

Debility, Constitutional, requires the use of the following tonics, either alone or combined; Chiretta (98, 99*), Sweet Flag Root (12), Country Sarsaparilla (163), Kariyat (191), Ním Bark (260), or Gulancha (352). *When attended with anæmia or great pallor of the surface, especially of the inner surface of the eyelids and tongue*, Sulphate of Iron (174), is indicated. The efficacy of all these remedies is increased by a liberal animal diet, and gentle exercise in the open air. *Debility after Fevers*, See *Fevers*.

Delhi Sores. The Borax Ointment (59) is strongly recommended. See also *Ulcers*.

Delirium generally is best treated by Evaporating Lotion (380) to the head, the Mustard foot bath (248), or Turpentine Stupes (363) to the extremities and a strong purgative; *for that occurring in Fevers*, See *Fevers*.

Delirium Tremens. *To relieve sleeplessness and anxiety*, give Opium and Camphor (283), or try the Mustard Foot Bath (248, 249), or the Wet Sheet (398). *To Support the Strength*, give Brandy Mixture (406*), and a nourishing diet.

Diabetes. Vapour baths (396) in the early stages, Alum Whey (27) and Lime Water (226) internally,

with Opium (288), at bed time, prove occasionally useful as palliatives. Their operation is assisted by a full animal diet, with a diminished quantity of rice and other farinaceous food, and by warm clothing.

Diarrhæa. In the early stages, especially if attended with heat of skin, &c., give Country Ipecacuanha (369) and Ispaghúl seeds (304), with a mild aperient, as Castor oil, if there is reason to think that the attack arises from crude undigested food in the intestines. In the advanced stages or in Chronic *Diarrhæa* try Sulphate of Copper (110), Catechu (88), Alum (26), or one of the following: Decoction of Babúl Bark (9), Infusion of Sweet Flag (13), Bael (44), Butea gum (62), Galls (146), Decoction of Pomegranate (312), and Omum water (318) with or without the addition, in each case, of a small portion of Opium (289). Turpentine Stupes (362) to the abdomen are useful if much pain is present. When connected with *Acidity of the Stomach*, give Lime Water (222). When caused by *Over-eating* or by *Indigestible Food*, follow up an emetic of Mustard (246) or Country Ipecacuanha (368), to unload the stomach, by Omum water (317), and subsequently by a dose of Castor oil. Capsicum (79) is thought to be specially useful in *Diarrhæa arising from the use of putrid food*, e.g., fish. The *Diarrhæa of Children* often yields to a dose of Castor oil, if given early; if not, one of the following may be tried; Bael (44), Catechu (88), Sulphate of Copper (110), Sulphate of Iron (181*), Saccharated Solution of Limo (222), or Ispaghúl Seeds (304). Omum Water (318) may

be advantageously combined with any of the above. *The Diarrhœa which precedes Cholera.* See *Cholera*. N.B.—In all cases of diarrhœa the food should be mild and unirritating, thick Arrowroot (403) being perhaps the best suited for the purpose, and in all obstinate or chronic cases, a warm flannel bandage should be worn round the abdomen.

Dropsy occurring in the young and vigorous is best treated at the outset by strong purgatives, as Croton Pills (120) or Oil (121), or Kaladana (187), followed by medicines which increase the flow of urine, as Decoction of Asteracantha (39), Infusion of Moringa (237), Mustard Whey (250), or Infusion of Pedalium (297), with which Nitre (269) or Sal Ammoniac (331) may be combined as circumstances require. The Vapour Bath (396), twice a week, proves useful in recent cases, where the patient is strong enough to bear it. Where the patient is very debilitated and anæmic (174), Sulphate of Iron (178) should be tried.

Drunkennes. After a debauch, a Mustard emetic (246) proves most useful in unloading the stomach of any spirit remaining in it. A few drops, 6 to 12, of Liquor Ammoniac in water subsequently given is often of signal use. Strong coffee, "café noir," is also most useful. *To allay the subsequent cravings for drink* try Omum Water (320).

Dysentery. In the early stages give Country Ipecacuanha (369) and Ispaghúl Seeds (304) with or without Opium (289*), and apply hot fomentations to the abdomen and Leeches to the verge of the anus (211); the latter tend much to relieve the

pain and straining, as do also Opiate enemata (289).†
In the advanced stages, or when it passes into Chronic

† The treatment of Acute Dysentery by large doses of Ipecacuanha, re-introduced into practice in 1858 by Dr. Docker, is acknowledged by the most experienced authorities to be far more effectual than any other. It consists, in the main, of administering, as early in the disease as possible, 25 to 30 grains of Ipecacuanha, in as small a quantity of fluid as possible, premising half-an-hour previously 25 to 30 drops of Laudanum. The patient should keep perfectly still in bed, and abstain from fluids for at least three hours. If thirsty, he may suck a little ice, or may have a teaspoonful of cold water. It is seldom, under this management, that nausea is excessive, and vomiting is rarely troublesome, seldom setting in for two hours after the medicine has been taken. Mustard poultices (247) or Turpentine stupes (362) should be applied to the abdomen. In from eight to ten hours, according to the urgency of the symptoms and the effect produced by the first dose, Ipecacuanha in a reduced dose should be repeated, with the same precautions as before. The effects of this treatment are soon manifest and surprising; the griping and straining subside, the motions quickly become feculent, blood and slime disappear, and often, after profuse action of the skin, the patient falls into a tranquil sleep and awakes refreshed. The treatment may require to be continued for some days, the medicine being given in diminished doses, care being taken to allow a sufficient interval to admit of the patient taking some mild nourishment suited to the stage of the disease. As the disease abates, the dose should be reduced. It is well, however, to administer 10 to 12 grains at bedtime for a night or two, after the stools are, to all appearance, healthy. Fomentations or Turpentine stupes, to the abdomen, lessen griping and diminish suffering. If a little diarrhoea without the dysenteric odour remain, it may be checked with a little astringent mixture, with or without opium. Astringents in any shape during the acute stage are not only useless, but dangerous. (Dr. Maclean). To sum up, it appears—1. That acute dysentery is more successfully and speedily treated by large doses of Ipecacuanha than by other means. 2. That it is more effectual

Dysentery, apply Turpentine Stupes (362) to the abdomen, and give Sulphate of Copper (110), Bael (44), Infusion of Kariyát (191), Decoction of Pomegrate Rind (312). When an aperient is required, give Sulphur and Cream of Tartar (344) or Castor oil, with the addition of a small portion of Opium. *For the Dysentery of Natives*, Galls (146), Mudar (243), Opium (289), and Decoction of Pomegranate Rind (312) seem best suited. *For the Chronic Dysentery of Children* the Saccharated Solution of Lime (222), Bael (44), Sulphate of Copper (110), or Sulphate of Iron (181), are indicated. See also *Diarrhœa of Children*. N.B.—In all cases of dysentery the food should be mild and unirritating, and a flannel bandage worn round the abdomen.

Dyspepsia. See *Indigestion*.

Ear, Discharges from in Scrofulous Subjects. Syringe the ear daily with Lime Water (225) or tepid water or milk and water, and give Fish Liver oil internally (138).

Ear-Ache. Use Opium locally as directed in 292.

Elephantiasis. The paroxysms of fever which accompany this disease are to be treated in the

in the acute than in the chronic forms. 3. That large doses, such as are mentioned above, may be given with perfect safety, without fear of hyper-emesis or other ill effects; and 4. That it is less successful with the natives of India than with Europeans. In the acute dysentery of natives, small doses, *e.g.*, from 6 to 8 grains thrice daily, so as to keep up a slight degree of nausea, short of actual vomiting, seem to answer better than the large doses mentioned above. It may be advantageously combined with Opium, from $\frac{1}{4}$ to $\frac{1}{2}$ grain with each dose.

manner directed for Intermittent Fever (*infra*). The only means of arresting the progress of the disease is to remove permanently from a locality in which it is endemic or prevalent, to another situated at least ten miles distant from the sea coast; the higher and drier the site, the better.

Epilepsy sometimes improves under Fish Liver Oil (241); its use may be combined with Sulphate of Copper in doses of a quarter of a grain twice or thrice daily. For this purpose, dissolve two grains in one ounce of Omum Water; of this, the dose is a tea-spoonful. See also remarks at the end of *Convulsions* in this Index.

Exhaustion from Hæmorrhage after Fevers or other causes, give Brandy mixture (405).

Eyes, Affections of. For "Country Sore Eye," apply Alum, as directed in Paragraph 23, and Decoction of Turmeric (360) to relieve the burning sensation. For other forms of *Ophthalmia*, attended with copious discharge, try Sulphate of Copper (113). To relieve great pain and intolerance of light, use Opium locally (292). *Blows on the Eye*: Alum Poultice (24), followed by Sal Ammoniac lotion (332), to remove discoloration. *Particles of Lime in the Eye* may be dissolved and removed by dilute Vinegar (382). *Particles of Dirt, &c.*, may often be speedily dislodged and removed by drawing the upper eyelid well over the under one as far as possible, for a few seconds. This simple plan is often successful when others fail. N.B.—Fresh Plantain Leaf (307) forms an excellent shade for the eyes, in all affections of those organs.

Face-ache, Neuralgic or Rheumatic. Sal Ammoniac

(326), Sulphate of Iron (177), or Fish Liver Oil (141) internally, and Datura (130), Mustard (252), or Ginger (157) poultices locally, are measures which used conjointly often prove successful. †

Fainting, generally yields to dashing cold water over the face and neck (386), and applying strong smelling salts to the nostrils; when partially recovered, Omum Water (318) or Assafoetida (35) may be given, or should there be much exhaustion, a dose of Brandy Mixture (405).

Fevers, Ardent or Continued. In most cases it is advisable to commence with a purgative of Kala-dana (187), Castor Oil (84), or Myrobalans (256), or if the patient be a strong adult, a Croton Pill (120); after its operation, the Solution of Nitre (264) may be given, and Decoction of Abelmoschus (2), Lemonade (232), or Tamarind Infusion (346). To allay the thirst and cool the system; for this latter purpose sponging the surface with Water (385) or diluted Vinegar (376) may be employed. The diet should consist chiefly of Rice Conjee (322), and other farinaceous articles, and the apartment should be kept cool and well-ventilated. *To relieve Head-ache or great fulness of the head*, apply constantly Evaporating Lotion (380) or Nitre Lotion (265), or if these fail to afford relief, Hot Water Fomentations (393). Leeches to the temples or nape of the neck (209), and Mustard Poultices to the feet (248), may also be necessary in

† When the disease has a distinct periodic character, *i.e.*, returns at specified periods, no remedy is equal to Quinine, which may be given in a single ten-grain dose in a glass of wine, just before the expected paroxysm, or in three-grain doses twice daily.

severe cases. *For any severe or acute pain arising in the chest or abdomen*, Leeches (209) over the seat of pain should be applied, but if these fail, a Blister (349) is advisable. *For Vomiting and Irritability of stomach*, give Lime Water (223). *For a Sore Throat or Fissures of the Tongue*, apply Borax (55), or Alum (29); *for Dryness of the Mouth and Fauces*, sucking sliced limes, or, better still, pineapples, generally suffices. *In the advanced stages, when great exhaustion, delirium, &c.*, are present, give Camphor (74) and Brandy Mixture (405) internally, and apply Turpentine stupes to the extremities (363); Turpentine enemata (364) are also valuable in this condition. *For subsequent Debility, and during Convalescence*, give one of the following tonics: Chiretta (98), Atis (42), Bonduc (98), Kariyát (191), Ním Bark (260), or Gulancha (352). A combination of Chiretta and Sweet Flag Root (12), or Chiretta Wine (99) is perhaps best suited for this purpose. A liberal animal diet should be allowed. N.B.—Throughout the attack it is essential to keep the bowels properly regulated.

Fever, Intermittent or Ague, and Remittent or Jungle Fever. Commence with an aperient, as in Fever (*ante*), and should the stomach be foul, give an emetic of Country Ipecacuanha (368). *In the cold stage*, cover the body well up, give Infusion of Ginger (69), and place bags containing hot sand or hot salt along the spine. *In the hot stage*, give plentifully of Lemonade (232), Solution of Nitre (264), and adopt generally the other measures advised above in Fever. *In the sweating stage*, do nothing but protect the surface from cold draughts of air or cold winds. In

the intermissions or periods between the paroxysms, give one of the following; Atís (42), Bonduc Nut (52), Chiretta (98), Sulphate of Iron (175), Ním Bark (260), or Gulancha (352). When one fails another may succeed; when each fails given singly, they will sometimes prove effectual given in combination. They are all greatly inferior in efficacy to Quinine.† *For these Fevers in Natives,*

† In mild, ordinary, uncomplicated cases of *Intermittent Fever*, all that is required, due attention being paid to state of the bowels and secretions, is to administer Quinine in doses of from 3 to 5 grains, so that 10 or 12 grains be taken in the intermissions between the paroxysms. It is best given in solution in water or coffee. In the severer forms or even in ordinary cases Professor Maelean, of the Netley Hospital, has proposed a treatment which appears very judicious, and which in his hands has for years proved very successful. It consists in administering 30 grains in three equal doses during the period of intermission; the first dose, in solution, should be given towards the close of the sweating stage, and the last about, as far as can be calculated, an hour before the next anticipated paroxysm. Should there be much irritability of the stomach, it should be given in enema in doses of 15 grains in place of 10 grains. After the paroxysm has by this means been arrested, a moderate degree of einchonism, *i.e.*, giddiness, buzzing in the ears, flashing before the eyes, &c., should be maintained for some days, by giving 3 or 4 grains in solution every four hours. In cases where the fever returns at the first lunar period, as it is apt to do, the patient a day or two previously, should be brought under the influence of quinine, which should be maintained till the time is past. Should it fail to influence the fever, attention should be directed to the state of the liver and bowels. When from any cause it cannot be given internally, trial may be made with it applied endermically; the experiments of Dr. Guastamaechia and others tending to prove that it becomes absorbed into the system through the skin, and operates as an anti-periodic almost as certainly as when given

Galls with Chiretta (151) and Sweet Flag Root (112) have been favourably spoken of. *Swelling of left side after Ague, See Spleen, Enlargement of.*

internally. He dissolved 8 grains in half an ounce of spirit, and rubbed first one-half, and after the interval of a quarter of an hour, the second half, along the spine. When this was done at the commencement of the cold fit, it very often prevented even a single recurrence. Dr. Daunt also bears testimony to this method in the fevers of South America.

In Remittent and Jungle Fever, Quinine is a remedy of the highest value, but its exhibition requires more caution and discrimination than in simple intermittents. Dr. Maclean's treatment appears to be worthy of every attention. After premising, in most cases, a cathartic, immediately on the first signs of remission, he administers a full dose of quinine, 10 grains, often 15, sometimes 20 grains, never exceeding that dose, and not deterred by the presence of headache or a foul tongue, nor because the remission is slight or imperfectly marked; and this dose he repeats every second hour until 30 or 35 grains have been taken before the hour of the expected exacerbation. Should the stomach be too irritable to bear it, it should be given in enema in large doses (20 grains). As soon as the second remission appears, it must be given as before until full cinchonism or distinct abatement of the disease occurs. During the remission the patient should have mild farinaceous diet, milk, chicken-broth, &c.; as soon as gastric irritability subsides, beef-tea should be given, and on the first sign of exhaustion, nourishment and stimulants should be resorted to at short intervals. With regard to the administration of quinine during exacerbations, Dr. Maclean is of opinion that in the adynamic forms of fever, as met with in some parts of India, and in neglected or mismanaged cases, where depletion has been carried too far, and the fever assumes more of a low, continued type, it may be given at any period irrespective of remission. Here it requires to be conjoined with the assiduous use of support and stimulants at short intervals.

As a preventive of Malarious Fever, the power and value of Quinine has been proved beyond a doubt. Every person engaged

Fits. See *Convulsions, and Hysterical Affections.*

Flatulence, and Flatulent Colic. Give Omum Water, (318), Lemon Grass Oil (216), Infusion of Ginger (155), or of Jatamansi (184); with Mustard Poultices (251) and Turpentine Stupes (362) externally, and in severe cases an enema of Assafoetida (36), will generally afford relief. See also *Bowels, Spasmodic Affections of. Of Children, See Colic.*

Gall Stones. To allay the severe pain attendant on passing, give Opium (284) and a Hip Bath (392).

Genital Organs, Great Irritation of. Try Camphor (72) internally, and use Borax (57) and Lime Water (224) locally. Sitting over the steam of hot water, or a tepid hip bath often affords great relief. When the irritation arises, as it often does, from worms in the intestines, give some of the remedies for *Worms.* Crab-lice, which are very difficult to distinguish on a dark skin, are also a frequent cause; if present, use the Corrosive Sublimate solution described in Art. *Lice.*

Glands, Enlarged. Apply externally, in the early stages, Sal Ammoniac Lotion (332), Betel Leaves (48), Camphor Liniment (68), or Opium Liniment (291). If matter forms, treat as abscess, and give Fish Liver oil internally.

in forests, swamps, or low, malarious sites, should be provided with a stock of it, and four grains in a cup of hot coffee should be taken the first thing in the morning or in a glassful of wine, later in the day. Even if it fail, which it rarely does, no harm can result from its use, and it is essential that it should be continued for at least 14 days after quitting a malarious locality.

Gleet may be treated with Cubebs (125), Galls (149), Gurjun Balsam (160), or Sandal Wood oil internally, and Alum Injections (30); these last named, however, require great caution, and should not generally be used except under medical supervision.

Gonorrhœa. After a purgative of Kaladana (187), Myrobalans (256), or Castor Oil, give Nitre (269) with Decoction of Abelmoschus (2), Ispaghûl (305), or Rice Conjee (322), for the purpose of allaying the pain and heat in passing urine. Pedalium (297) is said to be very effectual for this purpose and should be tried, if procurable. When the inflammatory symptoms begin to abate, one of the following should be given: Cubebs (125*), Gurjun Balsam (160), Sandal Wood oil (334), or Galls (149); Alum (30*) locally, is of great use in certain cases. *To relieve Chordee* (painful erection at night), Camphor (72) is one of our best remedies.

Guinea Worm. On the head of the worm appearing, it should be gently drawn down so as to secure it by rolling it round a small piece of twisted rag, or a thin piece of quill; and Water Dressing (394) applied, or should there be much pain, a Datura Poultice (132). Every day gentle traction should be made, and if this can be done whilst the limb or part is immersed in a running stream, or in a chattle of cold water, the extraction is rendered additionally easy. Great gentleness is requisite to prevent the worm breaking, as this accident is followed by inflammation, and the formation of abscesses, which are difficult of healing. See *Abscess*.

Gums, Ulceration and Sponginess of, may be treated with one of the following :—Decoction of Babúl Bark (9), Alum (29*), Catechu (89*), or Lime Juice (231).

Hæmorrhage from the Lungs, Stomach, Bowels, Kidneys, Uterus, or other Internal Organs, if attended by feverishness and heat of skin, a solution of Nitre (267) or Sal Ammoniac (330) may be given, with the plentiful use of Lemonade (234), Tamarind drink (346), Vinegar (379), and other refrigerants. In the absence of fever, Alum (25) may be given with safety and advantage.† In all these cases perfect rest in a recumbent posture, in a cool, well-ventilated apartment, and the avoidance of all excitement and stimulants, are essential to the success of the above, or any other remedies. *Exhaustion from excessive Hæmorrhage* requires Brandy Mixture (405), and other stimulants. *Hæmorrhage after Labours*, See *Labours*. *From Piles*, See *Piles*. *From Wounds*, See *Wounds*.

Hæmorrhage from the Nose may generally be checked by one of the following simple means : 1, the application of a cold body, as a key or a piece of ice to the nape of the neck. 2. By compressing the opposite nostril. 3. By standing in the upright position and holding both arms in the air for a few minutes. If these measures fail, recourse may be

† A far more effectual remedy in these cases is the Acetate of Lead in doses of 3 or 4 grains, made into a pill with half a grain of Opium, and followed immediately by a draught containing a little vinegar. These pills and draughts may be repeated every 3 or 4 hours till the bleeding begins to abate, when the interval between the doses may be lengthened, and the quantities decreased.

had to Alum (25*), Sulphate of Copper (116), or Vinegar (379). Should feverishness be present, treat as directed in preceding article.

Hæmorrhage from Leech Bites. See Paragraph 205.

Head, Affections of, where there is determination of blood to the head, with sleeplessness, restlessness, and anxiety. Mustard bath (249*).

Head-aches generally must be treated with reference to their cause. *If from Constipation*, Castor Oil (84), Kaladana (187), Myrobalans (256), or other purgatives. *From Bilious derangement*, the same purgatives preceded by a dose of Calomel (3 grains) if at hand, and followed by Sal Ammoniac (328*). *Nervous, Hysterical, and Rheumatic Head-aches* often yield to Sal Ammoniac (328) persevered in for a few days, and the local use of Camphor Lotion (71*). *From suppression of the Menstrual Discharge*, Leeches to the inner surface of the thighs (210). *From stoppage of bleeding from Piles*, Leeches to the verge of the anus (210); in both these last cases Aloes (19) should be given internally. The other measures occasionally useful are Ginger Poultices (157), Hot Water Fomentations (393), Mustard Poultices or Mustard Foot-baths (248) to the extremities.

Heart, Palpitations of. See *Palpitations*.

Heartburn often yields to Lime Water (221) given with milk or with Omum Water (317), or with Chiretta (98), if associated with indigestion.

Hoarseness may be treated by inhalations of the vapour of Hot Vinegar (378*), or Decoction of Abelmoschus (3), by gargles containing Capsicum (78*),

Black Pepper (301), or Moringa root (238); by chewing Ginger (158), or allowing a piece of Catechu (89) to dissolve in the mouth.

Hooping Cough. In the early stages regulate the bowels with Castor Oil (84), and give Country Ipecacuanha (370) and Sal Ammoniac (329). Leeches (213) are only advisable in severe attacks occurring in strong vigorous children. As soon as the feverish symptoms have subsided give Alum (28*); should this fail, try Sulphate of Iron (180), with or without Assafoetida (37). If weakness and emaciation exist, or in very obstinate cases, give Fish Liver Oil (140); Mustard Poultices (252) and frictions with Opium Liniment (291) to the spine seem useful in the chronic stage.

Hydrocephalus (Water on the Brain) occurring in weak emaciated children of a scrofulous habit occasionally improves under Fish-liver Oil (139).

Hysterical Affections. Amongst the means useful in controlling these, are Assafoetida (35*), Aloes and Assafoetida Pills (19), Jatamansi (184), Omum Water (318), Turpentine enemias (364), and Cold Water Affusion (386).

Indigestion, or Dyspepsia. Tonics, as Chiretta (98,99*), Sweet Flag Root (12), Country Sarsaparilla (163), and Gulancha (352), combined with stomachics as Cloves (105), or Cinnamon (102), Capsicum (79), and Omum Water (318*), offer the best prospect of success. *With great increased Secretion*, Butea gum (62). *With acidity of the Stomach*, Lime Water (221). *With torpidity of the Bowels*, Tincture of Kariyat (192). Without strict attention to diet, and

careful regulation of the bowels and other secretions, medicines will have comparatively little effect.

Inflammations, Local or External, require, according to circumstances—Leeches (212), Hot Water Fomentations (393), Water Dressings (394), Evaporating Lotion (380), Sal Ammoniac Lotion (332), and Rice-Flour or Rice Poultices (322) as external applications.

Influenza. Give plentifully of Solution of Nitre (264), and treat otherwise as described in *Catarrh*.

Insanity. A free action on the bowels by Croton Pill or Croton Oil (120,121), and the employment of a Mustard Bath (249), are of service in the early stages. No time should be lost in placing the patient under proper medical care.

Insensibility, from whatever cause arising, may be treated in the first instance by the cautious use of Cold Water Affusion (386). A Turpentine enema (364) may also be of service.

Irritation of the Genital Organs. See *Genital Organs*.

Itch. Use Sulphur as directed in Paragraph 341.

Jaundice. Mild cases often yield to Sal Ammoniac (331), and the free use of purgatives, as Kaladana (187), or Myrobalans (256).

Joints, Injuries or Enlargement of. In the early stages apply lotions of Alum (32), and Sal Ammoniac (332), and subsequently liniments of Camphor (68), and Turpentine (366). *In Chronic Enlargements*, Croton Liniment (122). *Scrofulous Affections of the Joints* improve under the use of Fish Liver Oil (138).

Kidneys, Irritable state and painful affections of. Give plentifully of diluents, as Decoction of Abel-

moschus (2), Ispaghúl seeds (305), or Riee conjee (322). These with Opium (286), and the use of the Hip Bath (392) are ealeulated to afford great relief. *Bleeding from, See Hæmorrhage.*

Labours. Don't interfere unnecessarily ; Nature, if left to her own unaided efforts, will aecomplish her work in natural uncomplicated labours. Many a woman has lost her life through meddlesome interference on the part of ignorant midwives. *Should the labour be very prolonged, apparently for want of action or power in the womb,* a few doses of Borax (58) may be given. *For Flooding,* lose no time in resorting to Cold Water Affusion (388), and subsequently use Vinegar locally (379). *To promote the Lochial Discharge, if scanty or arrested,* use Hot Water Fomentations (393). *For After-pains,* give a dose of Opium (289). *Convulsions attendant on,* See *Convulsions.*

Leech-bites, to arrest bleeding from, see Paragraph 205.

Leeches, to dislodge from nose and other passages, see Paragraph 206.

Leprosy. Give internally Chaulmúgra (94), Hydroeotylo (169*), or Mudar (242); with these may be advantageously conjoined a prolonged course of Fish Liver Oil (142), or the latter may be tried alone. *For the ulcerations,* poultices of Hydroeotyle (169), or Ním Leaves (261) may be applied with advantage. Opium (283) is often necessary *to relieve pain and procure sleep.*

Leucorrhœa ("Whites"). Cubebs (125), Nitre (269), Gurjun Balsam (160), or Sulphate of Iron (174*), internally ; with vaginal injections containing Babúl

Bark (9), Alum (30*), Galls (149) or Lime Water (224), are indicated.

Lice infesting the hair on various parts of the body, especially the pubes, may be destroyed by Cocculus Indicus Ointment (107) or Vernonia Seeds (373B), or more effectually and speedily by a solution of Corrosive Sublimate,† of the strength of three grains to one ounce of Rose Water. Used in moderation, it is perfectly safe, care being taken that it is not applied to a sore or abraded surface. The affected parts should be well washed with it twice daily.

Lime, Particles of, in the Eye, may be dissolved and removed by dilute Vinegar (382).

Liver, Chronic Affections of, are often greatly benefited by Sal Ammoniac (331). *Congestion of this organ, especially if arising from over-feeding,* often subsides under a dose of Calomel (3 or 4 grains) at night, followed, in the morning, by an active aperient of Kaladana (187), or Castor Oil (84). Further relief may be obtained by Hot Water Fomentations (393), Turpentine Stupes (362), or Betel Leaves (48), over the region of the liver; if these fail, Leeches to the same site, or to the verge of the anus (211), may afford manifest relief. All however

† Corrosive Sublimate is sold in most bazaars under the name of Shavir or Shaviram (*Hind. and Duk.*), Viram or Shav-viram (*Tam.*), Virama or Shaviram (Tel.), and Shaviram (*Cing.*) Examined by Mr. Moodeen Sheriff, the salt sold under these names has been found to be a tolerably pure specimen of Corrosive Sublimate, and he is of opinion that it may be safely used as a substitute for the officinal article imported from Europe. Being a powerful poison when taken internally, care should be taken to place it out of the reach of servants and children.

will be useless without strict attention to diet, and careful avoidance of all stimulating articles of food and drink.

Lock-jaw, See *Tetanus*.

Loins, Pain in the, See *Lumbago*.

Lumbago. Sal Ammoniac (326) internally, with liniments of Camphor (68), Lemon Grass Oil (217), Opium (291*), Datura Liniment or Poultices (130), or Turpentine (366) externally, often succeed in affording relief. Turpentine Stupes (362) may be tried in severe or obstinate cases.

Lungs, Affections of, See *Coughs, Consumption, and Bronchitis*. *Bleeding from*, See *Hæmorrhage*.

Measles. An occasional mild aperient, just sufficient to keep the bowels gently open, the plentiful use of Lemonade (232), or Rice conjee (322), with or without Nitre (264), together with confinement to bed in a cool well-aired apartment, and farinaceous diet for a few days, will generally suffice for recovery in mild uncomplicated cases. *Should cough occur*, use some of those means enumerated in *Coughs*. *To allay irritation of the surface*, sponge with diluted Vinegar (376) or Water (385), and dust the surface well over with Rice Flour (322). *The advanced stages, in bad cases, characterised by great exhaustion*, call for the use of Camphor (74), Brandy Mixture (405), and plentiful nourishment.

Menstrual Discharge, Suspension, or Irregularity of (Amenorrhœa). Aloes (18), Borax (58), and Sulphate of Iron (174*), alone or combined, may prove serviceable. *Excessive or long continued Menstruation*, Alum (25) and Vinegar (379). *When attended with*

much pain and distress, Opium Liniment (291), or Datura Poultice or Liniment (130) to the loins.

Mercury, Salts of, as Corrosive Sublimate, Poisoning by. If vomiting does not already exist it must be excited by a Mustard (246) or other emetic, and the stomach having thus been emptied of any of the poison it may contain, prompt recourse should be had to the white and yolk of raw eggs, which may be given alone or beaten up with rice flour into a paste with milk or water. The after treatment consists in the free use of Rice conjee and other demulcent drinks, gargles of Alum (29) or Borax (55), to control the salivation; and small doses of Opium, should there be much pain, and a milk or farinaceous diet.

Mesenteric Affections of Children are best treated with Fish Liver Oil (139).

Milk, For increasing the secretion of, Castor Oil Leaves (85); *for diminishing or arresting the secretion of*, Betel Leaves (49).

Milk Abscess. In the early stages apply either Sal Ammoniac lotion (325) or hot Vinegar stupes (381). Should matter form, treat as Abscess.

Mouth, Ulcerations of. Try first Sulphate of Copper (112) or Lime Juice (231); if these fail, use some of the other remedies mentioned in Art. *Gums, Ulceration and Sponginess of.* For *Apthous Ulcerations, i.e., small white specks or ulcers in the mouths of infants and young children*, apply Borax (55*), or Alum (29), or Sulphate of Copper (112); Country Sarsaparilla (163) may at the same time be advantageously given internally.

Mumps. Beyond a dose of Castor Oil (84) or Infusion of Senna (336), so as to keep the bowels gently open, little is required beyond keeping the swollen parts covered with a piece of flannel, to protect them from cold draughts of air, and the use of a farinaceous diet for few days. Should there be much pain, Opium Liniment (291) may be smeared over the surface of the swollen gland at bed time. Should there be much fever, heat of skin, &c., a few doses of solution of Nitre (264) may be given.

Muscles, Pains in. Give Sal Ammoniac (327) internally, and use Liniments containing Camphor (68), Lemon-grass Oil (217), Opium (291), or Turpentine (366) externally.

Mosquito Bites, to relieve the irritation, try Lime Juice (235), or some of the measures recommended in paragraph 380.

Nettle Rash, to allay irritation, apply Borax Lotion (57).

Neuralgia. Try Sal Ammoniac (326), or when the pain returns periodically,† Sulphate of Iron (177). Some obstinate cases which resist these and other remedies yield to a course of Fish Liver Oil (141). Amongst external applications are Datura Liniment or Poultices (130), Lemon-grass Oil (217), Mustard

† When Neuralgia of the Head or Face (*Tie-Douloureux*) recurs at stated periods, and is apparently of malarious origin, no remedy is equal to Quinine, which may be given in one large dose (ten grains) shortly before the time when the pain is expected to return. Should it not yield after three or four doses, no advantage will be gained by continuing it. Another plan is to give it in three-grain doses in a glass of wine thrice daily between the paroxysms of pain.

Poultices (253), and the Camphorated Opium (291), or Turpentine Liniment (366).

Nipples, sore or cracked, are benefited by Borax Lotion (56), or Lime Water (235) locally applied. As a preventive use Infusion of Catechu (90).—[To ensure prevention, the nipple should be carefully washed and dried immediately the child is removed from the breast, and the tissues may be hardened by washing them for a short time before delivery, and after each application to the breast, with a little brandy and water. It is also a useful practice to wear over the nipple a metallic shield, which should be constantly applied when the child is not at the breast.—*Prof. Ringer.*]

Nodes, or Painful Swellings on the Shin-bone. Apply Datura Poultice (130), or other means mentioned in *Tumours, Painful*.

Nose, discharge of Matter from. Use injections of Lime Water (225), or tepid Milk and Water, and give Fish Liver Oil (138) internally.

Nux Vomica, Poisoning by. Follow the treatment advised for poisoning by *Cocculus Indicus*. Bland Oils, *e.g.*, Jinjili, Cocoa-nut, or Ground-nut Oil, seem to retard its action, hence these may be given largely.

Opium, Poisoning by. The stomach having been emptied as speedily as possible by an emetic of Sulphate of Copper (117) or Mustard (246), every means should be adopted for rousing the patient; this is to be effected by dashing cold water over the head and chest, walking him quickly about, supported by two attendants in the open air, applying strong

salts, &c., to the nostrils, irritating the leg by flagellation with a wet towel, and administering strong coffee, "café noir," or if there should be great depression, a little brandy or other stimulant. When the patient can swallow, Decoction of Galls should be given as directed in Paragraph 152. In extreme cases artificial respiration (subsequently described in Appendix, in Art. Drowning, Recovery from) must be tried. These measures should be long persevered in; as long as life lasts, hope of recovery is not to be banished.

Pains, Muscular, See Muscles, Pains in.

Palpitations of the Heart, Nervous. These may in a great measure be controlled by Assafoetida (35), Camphor (70), or Infusion of Jatamansi (184), either alone or used conjointly.

Paralysis. Little can be done by non-professionals beyond giving internally Fish Liver Oil (142), alone or with Sulphate of Iron (177) in anæmic or debilitated subjects, and applying irritants, as Croton Liniment (122), to the spine.

Physic Nut, Poisoning by, See Croton Seeds.

Piles. Sulphur (344) internally, and Gall Ointment (148), or astringent enemas, as Decoction of Babul Bark (9), or Galls (148), suffice in ordinary cases. In old debilitated subjects Confection of Pepper (300) proves very useful. *When inflamed and painful,* the Hip Bath, or sitting over the steam of hot water (391), and the application of a solution of Borax (56) and soft Rice Poultices (322), with or without the addition of Opium (293), give great relief. *To control bleeding from,* use Alum (25), or

enemas of Sulphate of Iron (179).† Persons subject to Piles will do well to avoid the use of coffee, as this often appears to aggravate the severity of the symptoms.

Pregnancy. For pains in the Loins use Camphor (68), or Camphorated Opium Liniment (291). To allay the Vomiting try Infusion of Cloves (105). A cup of hot coffee and piece of dried toast should be taken in bed very early in the morning, after which the woman should remain quiet until the usual hour for rising; by this means the vomiting may often be prevented. When procurable, a glass or two of sparkling Moselle is often productive of the best effects, allaying the vomiting, and enabling the patient to retain and digest food.

Prickly Heat may in a great degree be relieved by Borax Lotion (57), and subsequently dusting the surface with Rice Flour (322) or finely-powdered Sandal Wood.

Pyrosis, See *Water Brash*.

Rheumatism, Acute. *Rheumatic Fever* may be treated much in the same way as Continued Fever (*ante*); by confinement to bed in a cool well-ventilated apartment, farinaceous diet, and abstinence from

† Where bleeding from piles in residents in hot climates has been long continued, it is inadvisable, so long as it remains within moderate bounds, to take any means of arresting it suddenly; the suppression of the discharge having in some instances been known to be followed by congestion and even abscess in the liver, and in others by congestive head-aches and determination of blood to the head. It seems to be an effort of nature to relieve the abdominal circulation, which it is unwise to interfere with, unless the discharge be so profuse as to debilitate the patient, and then the object should be rather to moderate, than to arrest it.

alcoholic and other stimulants. Nitre (270) should be given freely, with Lemonado (232) as an ordinary drink. The bowels should be carefully regulated, one or two motions procured daily by a dose of Calomel (3 or 4 grains) and Opium (1 grain, or even 2 grains if there should be great pain or restlessness) at bed-time, followed by Infusion of Senna (336), or Castor Oil (84), in the morning. To the swollen and painful joints a strong solution of Nitre (270) should be kept constantly applied; it generally affords great relief; if not, a Datura poultice or moistened Datura leaf (or Tobacco leaf) applied as directed in paragraph 130 may be tried.

Rheumatism, Chronic. Here Sal Ammoniac (327) and Country Sarsaparilla (163) promise to be of much use. Chaulmúgra (94), Mudar (242), and Gulancha (352) have been advised, but in long-standing cases more benefit may be expected from Fish Liver Oil (142). The action of the skin may be kept up by Camphor, both internally and in the form of Vapour Bath (69), and by hot Infusion of Ginger (156) at bed-time, and by constantly wearing flannel next to the skin. *Amongst external applications*, Camphorated Opium Liniment (291) and Lemon Grass Oil (217) are the best; the others comprise liniments containing Camphor (68), Croton Oil (122), Oil of Country Nutmeg (274), Sulphur (343), and Turpentine (366); Piney Tallow (373) has been well spoken of. Should one or more joints be specially attacked, make trial of the applications advised in Acute Rheumatism, or Flour of Sulphur, as directed in paragraph 343.

Rickets. Fish Liver Oil (138) may be used with great advantage; it may be combined with Sulphate of Iron (177) if the child is weak and anæmic. Limo Water and milk (222) forms an eligible ordinary drink.

Ringworm. Apply Borax and Vinegar (60*), Cassia alata Ointment (81), or Sulphate of Copper (115).

Saint Vitus's Dance, See *Chorea.*

Salivation. Use gargles of Alum (29), or Borax (55), or try Catechu in substance (89).

Scald-head, See *Ringworm.*

Scarlatina or Scarlet Fever. Commence with an emetic of Country Ipecacuanha (368) or Mudar (241); place the patient in a cool well-ventilated apartment; give plentifully of Lemonade (232) or Rice conjee (322) to allay thirst and feverishness, and give Capsicum Mixture (78) internally. *For the sore throat,* inhale the fumes of hot Vinegar (377), and use Capsicum gargle (78). Sponging the surface with diluted Vinegar (376) or Water (385) is attended with great comfort to the patient, and is otherwise beneficial. The advanced stages, complications, and subsequent debility, are treated in the same manner as in Fevers (*ante*).

Sciatica, See *Neuralgia.* Enveloping the whole of the painful limb in the "Wet sheet" (398) proves sometimes successful when other remedies fail.

Scorpions, Stings of, See *Bites, Venomous.*

Scrofula. Fish Liver Oil (138) proves most useful in cases in which *Abscesses, Ulcers,* or *Skin Disease* are present. *Scrofulous Ophthalmia* is also greatly benefited by it. When the patient is debilitated and anæmic,

the oil may advantageously be combined with Sulphate of Iron. Chaulmúgra (94), Hydrocotyle (169), and Lime Water (225), are amongst the remedies occasionally useful. A dose of Opium (283) or Tincture of Datura (128) may be given at night, if the pain or irritation from ulcers or skin disease occasion sleeplessness. A liberal animal diet, gentle out-door exercise, and sea-bathing are valuable adjuncts to the above remedies.

Scurvy. Lime Juice (231) holds the highest rank both as a curative and preventive agent. All acid fruits, Lemons, Oranges, Tamarinds (346), &c., may be used with the greatest advantage. As a preventive of Scurvy in jails, &c., Lime Juice and other analogous agents will prove of comparatively little use unless attention is paid to hygienic measures, *e.g.*, the cleanliness, ventilation, dryness of the building, reduction of numbers in cases of overcrowding, and the use of a liberal and wholesome diet, containing a large proportion of fresh vegetables. *Diarrhœa of,* give Bael (44).

Seminal Discharges, Involuntary. Give Camphor (72) at bed-time. These discharges being sometimes due to irritation caused by Thread-worm in the bowels, attention should be directed to this point. See *Worms.*

Skin Diseases. Country Sarsaparilla (163*), Chaulmúgra (94), or Mudar (242); or where the affection occurs in debilitated, serofulous, or leprous individuals, Fish Liver Oil (138) may be given internally. One of the following may at the same time be applied externally; Cassia alata (81), Chaulmúgra (94), Lime

Liniment (225), Myrobalan Ointment (257), or Sulphur (342). The Vapour Bath (396) is often very useful where the skin is hard, dry and rough. Borax lotion (57) in many instances will allay the irritation.

Sleeplessness in Head Affections. Mustard Bath (249). From pain attendant on Ulcers, Rheumatism, &c., Opium (283) or Tincture of Datura (128) at bed-time.

Small Pox. Commence with a mild aperient of Castor Oil (84) or Senna (336), place the patient in a cool well-ventilated room, and give freely Lemonade (232), Rice conjee (322), &c., with solution of Nitre (264); sponge the surface daily with diluted Vinegar (376) or Water (385); and still further, to *allay irritation*, dust the pustules freely with Rice Flour (322). With the view of *preventing pitting*, apply Lime Liniment (229). In the advanced stages, attended with great exhaustion, delirium, &c., give Camphor (74), Brandy Mixture (405), and other stimulants, with nutriment. *Subsequent debility and Convalescence*, treat as in Fever, *q.v.*

Snake Bites, See Appendix B.

Spermatorrhœa. See *Seminal Discharges*.

Spleen, Enlargement of, "Ague Cake." Give Sulphate of Iron and purgatives, as advised in Paragraph 176. Extract of Gulancha (353) is worth a trial.†

Sprains, Blows, and Bruises. Solution of Sal Ammoniac (332), Hot Water Fomentation (393), or Evaporating Lotion (380) are most suitable appli-

† Quinine in doses of 5 to 8 grains thrice daily produces the best effect in these cases.

cations for the early stages. Should there be much swelling and heat of skin, Leeches (212) may be necessary. When the active symptoms have subsided, Liniments of Camphor (68), Opium (291), Lemon-grass Oil (217), or Turpentine (366) are indicated. In Sprains, it is of the greatest importance to keep the part perfectly quiet for some days after the accident. *To remove subsequent swelling*, apply Alum Lotion (32). *To remove discoloration*, Solution of Sal Ammoniae (332).

Stiff Neck. Apply Opium Liniment (290).

Stomach, Acidity of. Give Lime Water (221).
Bleeding from, See *Hæmorrhage from internal organs.*
Pains in, See *Flatulence, Flatulent Colic, and Bowels, Spasmodic Affections of.*

Sunstroke. Employ Cold Water Affusion and other measures advised in Paragraph 386. Artificial Respiration, as described in Appendix A, is worth a trial where the insensibility is deep and prolonged.

Syphilis. On the first appearance of a chancre or ulcer on the penis, sprinkle its surface with a little very-finely powdered Sulphate of Iron, and this having been removed, dress subsequently with Black Wash (225) till the sore shows signs of healing. Mercury (if at hand) should be given so as to induce slight soreness of the gums†. Country Sarsa-

† To effect this give one grain of Calomel with a quarter or half a grain of Opium night and morning, and should the gums at the end of a week not be affected, the dose of Calomel may be doubled. Soreness of the gums, with a peculiar (mercurial) fetor of the breath and metallic taste in the mouth, may be taken as an indication that the remedy has been carried to the required extent, and this condition it is desirable to maintain until the sore

parilla (163), Hydrocotyle (169), and Mudar (242) are better suited for the more advanced stages of the disease, or when it becomes constitutional. The use of the Country Sarsaparilla, however, may well be conjoined with the mercurial treatment from the very commencement. *N.B.*—Avoid all the crude preparations of Mercury in use by the native doctors, or sold in the bazaars; they are likely to do incalculable mischief.

Tetanus (Lock-jaw). Try Datura (131*).

Throat, Dry and irritable states of, giving rise to cough, inhale the Vapour of Hot Decoction of Abelmoschus (3), or of Hot Water (390). *In Inflammatory states of, without Ulceration,* use the same inhalations, and allow a piece of Nitre to dissolve in the mouth (266). *Relaxed or Ulcerated Sore Throat,* use gargles of Alum (29), Capsicum (78), Moringa (238), Black Pepper (301), or Pomegranate rind (313). Catechu (89), Ginger (158), and Omum Seeds (316), used in substance, prove useful in some cases, as do inhalations of the vapour of Hot Vinegar (377), or simple Hot Water (390).

Tic Douloureux. See *Face-ache and Neuralgia.*

heals or the symptoms subside; this may occupy four or five weeks. No good, but rather great harm, may result from carrying the use of mercury beyond this point. Should it cause much increased flow of saliva (which is very undesirable) use the remedies advised for *Salivation*. If during a course of Mercury, the sore, instead of improving and healing, becomes worse, it should at once be discontinued. Stimulants and all kinds of excitement, as well as exposure to atmospherical changes, especially wet, should be avoided during its use.

Tongue, Fissures or Cracks of, in the advanced stages of Fever, Consumption, &c. Use Borax (55), or Alum (29).

Toothache sometimes yields to Opium (292*), or Catechu (89) locally applied, with or without Ginger (157), or Mustard Poultices externally. Extraction is the only certain cure in the majority of cases.

Tumours, Painful, apply Datura in one of the forms advised in paragraph 130, and give Opium (283) or Tincture of Datura (128) at night to procure sleep. A Tobacco leaf may often be advantageously substituted for Datura.

Ulcers may be successfully treated by the local application of solution of Sulphate of Copper (114*), Ceromel (167*), Oil dressing (338), Water dressing (394), and Rice Poultices (322), varied according to circumstances; *if attended with fetid discharge*, Charcoal Poultices (91); *if with much discharge*, Catechu Ointment or Lotion (90) and Myrobalans Ointment (257). *Sloughing, Gangrenous or Ill-conditioned Uleers* require Alum Ointment (31), Borax (59), Ním Poultices (261), Oil of Country Nutmeg (274), Toddy Poultices (355*), Turpentine Ointment (367), and Resin Ointment (372). "Irrigation" (395) is most useful in removing the slough and stimulating to healthy action. *If the pain and irritation are so great as to prevent sleep*, give Opium (283), or Tincture of Datura (128). *To excessive granulations* ("Proud flesh"), apply Sulphate of Copper (114). In all cases Country Sarsaparilla (163), Hydrocotyle (170), or Mudar (242) may advantageously be given internally; and *for Uleers occurring in scrofulous subjects*, Fish Liver Oil (137, 138) proves most useful.

Urine, To relieve pain and scalding on passing, Nitre (269), with Rice Conjee (322), Decoction of Abelmoschus (2), or of Ispaghúl Seeds (305), and the Hip Bath (392) generally afford relief. *For Retention of Urine*, Opium (287*) and a Hip Bath (392), with Hot Water Fomentations to the pubes, often succeed in recent cases; if these fail, no time should be lost in placing the patient under medical care.

Uterus, Painful Affections of. Camphor (73), Opium (289*), Datura Poultices (130), and Hip Bath (392), either alone or conjointly, are calculated to afford relief. *For Prolapsus or Descent of*, use vaginal injections of Decoction of Galls (147), or of Babúl Bark (9), holding Alum (25*) in solution. *Bleeding from*, See *Hæmorrhage, and Menstrual Discharge, Excessive.*

Vaginal Discharges. Cubebs (125) and Gurjun Balsam (160) internally, and vaginal injections of Lime Water (224), Alum (30), and Decoctions of Babúl Bark (9), Galls (149), or Pomegranate Rind (313) are indicated. For the *Vaginal discharges of young children* the local application of Lime Water (224), with Fish Liver Oil (138) internally offer the best chances of success.

Voice, Loss of. Catechu (89), or any of the other measures directed for *Hoarseness.*

Vomiting. Amongst the remedies to allay this, are Infusion of Cloves (105), Infusion of Ginger (155), Lemon Grass Oil (216*), and Omum Water (318), with or without the addition of a little Opium (290). Lime Water (223), though especially adapted for *Vomiting arising from acidity of the*

stomach, is well worthy of a trial in all obstinate cases, especially in the *Vomiting of infants and young children*. It is best given in milk.

Wasps, Stings of, See *Bites, Venomous*.

Water on the Brain, See *Hydrocephalus*.

Water-brash (Pyrosis). Butea Gum (62), and Lime Water (223) may often be used with advantage.

Whites, See *Leucorrhœa, and Vaginal Discharges*.

Womb, Affection of, See *Uterus, Affections of*.

Worms. For *Tania or Tape Worm*, give Kamala (189), Pomegranate Root bark (314), or Turpentine (365). Where one fails another will often succeed. For *Lumbricus or Common Round Worm*, try Butea Seeds (64), Vernonia Seeds (373*b*) or Papaw Juice (295).† For *Ascarides, or Thread Worm*, use enemas of Lime Water (227), Assafœtida (36), or Turpentine (365).

Wounds Ulcerated, See *Ulcers*.

† No medicine is so effectual in this class of cases as SANTONIN, and, considering the great prevalence of these worms amongst the people of India, and the many anomalous, nervous and other affections to which they give rise, it is advisable always to have on hand a supply of this drug. The dose for children under four years is from 2 to 4 grains; above twelve years from 6 to 8 grains, rubbed up with about thrice its weight of sugar, repeated every six or eight hours thrice in succession. A plan I have found very successful is to give the Santonin at bed time, and a small dose of Castor Oil in the morning, three days in succession. In many cases, it has been stated, no aperient is needed, one or two stools succeeding its administration containing the worms, if any are present; still it is safer to follow up its use by an aperient. It is of little or no use in Tape Worm; and in Thread Worm, though it will aid, often strikingly, in removing the worms, it will not prevent their reappearance. For Round Worm it is by far the best remedy we possess.

APPENDIX A.

DIRECTIONS FOR RESTORING THE APPARENTLY DEAD FROM DROWNING.

(Reprinted by permission from the Directions issued by the Royal Humane Society.)

As soon as the body is taken out of the water, lay it on the ground, wipe it dry, and let the wind blow freely upon the surface. With this view, on no account let people crowd round the body.

The points to be aimed at are—first, and immediately, the RESTORATION OF BREATHING; and secondly, after breathing is restored, the PROMOTION OF WARMTH AND CIRCULATION.

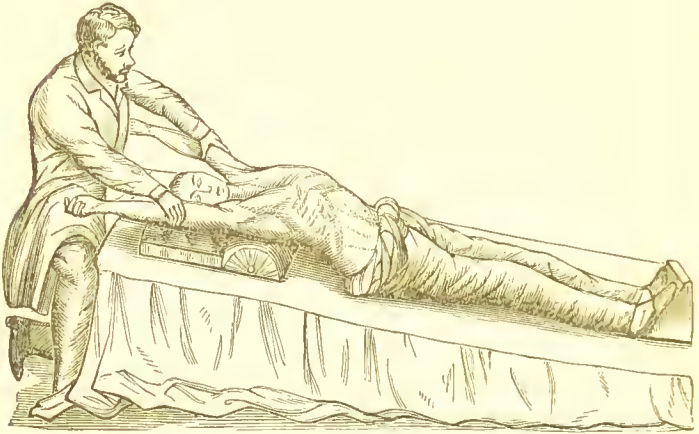
Treatment to Restore Natural Breathing.

RULE 1.—*To maintain a Free Entrance of Air into the Windpipe.*—Cleanse the mouth and nostrils;* open the mouth; draw forward the patient's tongue, and keep it forward; an elastic band over the tongue and under the chin will answer this purpose. Remove all tight clothing from about the neck and chest.

RULE 2.—*To adjust the Patient's Position.*—Place

* A good plan is to turn the body gently over for a few minutes with the face to the ground, one of the hands being placed under the forehead. By this means, the water will run out of the mouth, and the tongue will fall forward, leaving the breathing opening free.—E. J. W.

the patient on his back on a flat surface, inclined a little from the feet upwards; raise and support the head and shoulders on a small firm cushion or folded article of dress placed under the shoulder-blades.



I.—INSPIRATION.



II.—EXPIRATION.

To illustrate the position of the Body during the employment of this Method of Inducing Respiration.

RULE 3.—*To imitate the Movements of Breathing.*—Grasp the patient's arms just above the elbows ; and draw the arms gently and steadily upwards, till they meet above the head (this is for the purpose of drawing air into the lungs), and keep the arms in that position for two seconds. Then turn down the patient's arms, and press them gently and firmly for two seconds against the sides of the chest, *see Engravings I. and II.* (this is with the object of pressing air out of the lungs. Pressure on the breast-bone will aid this).

Repeat these measures alternately, deliberately, and perseveringly, fifteen times in a minute, until a spontaneous effort to respire is perceived, immediately upon which, cease to imitate the movements of breathing, and proceed to INDUCE CIRCULATION AND WARMTH (*as below*).

Should a warm bath be procurable, the body may be placed in it up to the neck, continuing to imitate the movements of breathing. Raise the body in twenty seconds in a sitting position, and dash cold water against the chest and face, and pass ammonia under the nose. The patient should not be kept in the warm bath longer than five or six minutes.

RULE 4.—*To excite Inspiration.*—During the employment of the above method excite the nostrils with snuff or smelling-salts, or tickle the throat with a feather. Rub the chest and face briskly, and dash cold and hot water alternately on them.

Treatment after Natural Breathing has been Restored.

RULE 5.—*To induce Circulation and Warmth.*—Wrap the patient in dry blankets and commence rubbing the limbs upwards, firmly and energetically. The friction must be continued under the blankets or over the dry clothing.

Promote the warmth of the body by the application of hot flannels, bottles or bladders of hot water, heated bricks, &c., to the pit of the stomach, the armpits, between the thighs, and to the soles of the feet. Warm clothing may generally be obtained from bystanders.

On the restoration of life, when the power of swallowing has returned, a teaspoonful of warm water, small quantities of wine, warm brandy and water, or coffee should be given. The patient should be kept in bed, and a disposition to sleep encouraged. During reaction large mustard plasters to the chest and below the shoulders will greatly relieve the distressed breathing.

APPEARANCES WHICH GENERALLY INDICATE DEATH.

There is no breathing or heart's action; the eyelids are generally half-closed; the pupils dilated; the jaws clenched; the fingers semi-contracted; the tongue appearing between the teeth, and the mouth and nostrils are covered with a frothy mucus. Coldness and pallor of surface increase.

GENERAL OBSERVATIONS.

On the restoration of life, a teaspoonful of warm water should be given; and then, if the power of swallowing be returned, small quantities of warm wine or weak brandy and water, warm; the patient should be kept in bed and a disposition to sleep encouraged. Great care is requisite to maintain the restored vital actions, and at the same time to prevent undue excitement.

This treatment is to be persevered in for three or four hours, or until the pulse and breathing have ceased for at least one hour. It is an erroneous opinion that persons are irrecoverable because life does not soon make its appearance; as cases are on record of a successful result even after five hours' perseverance in the use of the above means.

APPENDIX B.

SUMMARY OF TREATMENT OF PERSONS BITTEN BY
VENOMOUS SNAKES.*

Apply at once a ligature or ligatures at intervals of a few inches as tight as you can possibly tie them, and tighten the one nearest the wound by twisting it with a stick or other agent.

Scarify the wound, and let it bleed freely.

Apply either a hot iron or live coal, or explode some gunpowder on the part, or apply either some carbolic or some mineral acid, or caustic.

Let the patient suck the wound whilst you are getting the cautery ready; or, if any one else will run the risk, let him do it.

If the bite be on a toe or finger, especially if the snake have been recognised as a deadly one, either completely excise or immediately amputate at the next joint. If the bite be on another part, where a ligature cannot be applied, or indeed if it be on the limbs above the toes or fingers, cut the part out at once completely with a sharp pen-knife or other sharp cutting instrument.

Let the patient be quiet. Do not fatigue him by exertion. When, or even before, symptoms of

* Reprinted by permission, from Dr. Fayer's splendid work, "The Thanatophidia of India." Folio. London, Churchill, 1874.

poisoning make their appearance, give eau de luce or liquor ammoniæ, or carbonate of ammonia, or even better than these, hot spirits and water. There is no occasion to intoxicate the person, but give it freely and at frequent intervals.

If he becomes low, apply mustard poultices and hot bottles (and if available, galvanism or electro-magnetism) over the heart and diaphragm. Cold douches may also be useful.

Encourage and cheer the patient as much as possible.

As to local effects, if there be great pain, anodynes may be applied and administered; and anti-septic poultices to remove sloughs. Collections of matter must be opened.

In extreme cases artificial respiration (described in Appendix A for the recovery of the drowned) is worthy of a trial.

The following additional remarks by Dr. Fayrer will serve to elucidate the above summary of treatment:—

✓ As soon as possible after a person is bitten by a snake, apply a ligature, made of a piece of cord, round the limb or part at about 2 or 3 inches above the bite.

Introduce a piece of stick or other lever between the cord and the part, and by twisting tighten the ligature to the utmost.

Apply other two or three ligatures above the first one at intervals of 4 or 6 inches, and tighten them also. After the ligature has been applied, scarify by cutting across the puncture to the depth of a quarter of an inch with a pen-knife or other similar cutting instrument, and let the wounds bleed freely; or better still, excise the punctured part.

Apply either a hot iron or live coal to the bottom of these wounds as quickly as possible, or some carbolic or nitric acid.

If the bite be not on a finger or toe or part where a ligature can be applied, raise up the integument with the finger and thumb, and with a sharp pen-knife cut out a circular piece as big as a finger nail round each puncture, *i.e.*, round the points of the finger and thumb, to the depth of $\frac{1}{4}$ to $\frac{1}{2}$ an inch. Then apply the hot coal or hot iron to the very bottom of the wounds.

Give fifteen drops of liquor ammoniæ, diluted with an ounce of water, immediately, and repeat it every quarter of an hour for three or four doses, or longer, if symptoms of poisoning appear.

Or give hot brandy, or rum, or whisky, or other spirit with an equal quantity of water, about an ounce of each (for an adult) at the same intervals.

Should no symptoms of poisoning appear in half-an-hour after the application of the ligatures, they should be relaxed or the part will perish from gangrene; if they should however appear, the ligatures should not be relaxed until the person be recovering from the poison, or until the ligatured part be cold and livid.

Suction of the wounds is likely to be beneficial, but as it may be dangerous to the operator, it cannot be recommended as a duty.

If, notwithstanding, symptoms of poisoning set in, and increase, if the patient becomes faint or depressed, unconscious, nauseated or sick, apply mustard poultices, or liquor ammoniæ on a cloth, over the stomach and heart; continue the stimulants, and keep the patient warm, but do not shut him up in a hot stifling room or small native hut—rather leave him in the fresh air than do this.

Do not make him walk about if weary or depressed, rouse him with stimulants, mustard poultices, or ammonia, but let him rest.

If the person be first seen some time after the bite has been inflicted, and symptoms of poisoning are present, the same measures are to be resorted to. They are less likely to be successful, but nothing else can be done.

In many cases the prostration is due to fear; the bite may have been that of a harmless or exhausted snake, and persons thus bitten will rapidly recover under the use of the above measures. If poisoned, but as is frequently the case, not fatally, these measures are the most expedient; if severely poisoned, no others are likely to be more efficacious.

People should be warned against incantations, popular antidotes, and loss of time in seeking for aid.

To the above remarks, Dr. Fayrer adds:—"The measures suggested are no doubt severe, and not

such as under other circumstances should be entrusted to non-professional persons. But the alternative is so dreadful that even at the risk of unskilful treatment, it is better that the patient should have this chance of recovery.”

APPENDIX C.

List of articles required for carrying out the directions contained in this work :—

A set of Apothecaries' Scales and Weights (with an extra set of Weights).

1 Wedgwood Pestle and Mortar (medium size).

2 Measure Glasses (up to 6 ounces).

2 Minim Glasses.

1 Imperial Pint (20 ounces) Pewter Measure.

2 Glass Male (Urethral) Syringes.

2 Pewter ditto.

2 Glass Female (Vaginal) Syringes.

1 Metallic ditto ditto (large).

1 Enema Apparatus, fitted with metallic tubes, &c.*

2 Earthenware Slabs for mixing Ointments, Pills, &c.

3 Spatulas of varying lengths.

1 Nest of Wedgwood or Tin Funnels.

1 Nutmeg Grater.

2 Lancets in a case.

1 Sponge.

3 Yards of best Diachylon or Sticking Plaster (in tin case).

$\frac{1}{4}$ Pound of Lint.

3 four-ounce Jars of Liebig's Extract of Meat.

* Those with Indian-rubber or Caoutchouc flexible tubes are to be avoided, as they readily spoil in hot climates.

1 Small Actual Cautey Iron.	} Forsnake-bites,ad- vised by Dr.Fayrer. See Appendix B.
1 Sharp Penknife or Scalpel.	
6 Pieces of Whipcord.	

MEDICINES.

Sulphate of Quinine, 2 ounces.

Powdered Ipecacuanha, 8 „

Calomel, 4 „

Santonin, 4 „

Acetate of Lead, 8 „

Opium (in 1 grain pills), No. 200

„ in Laudanum, 8 ounces.

Blistering Fluid.

(Liquor Epispasticus, *Brit. Ph.*) } 4 ounces.

Liquor Ammoniaë, 8 ounces.

A pint bottle of Carbolic Acid.

N.B.—These should be supplied and kept in well glass-stoppered or well-corked bottles.

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